



# VOICE OF THE DIABETIC

## A SUPPORT AND INFORMATION NETWORK

The Diabetics Division of The National Federation of the Blind

Volume 5, No. 3

Summer Edition

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### Diabetes, exercise, and blindness

by Donovan Cooper



Donovan Cooper is a leader in the NFB Diabetics Division, and says that blindness is no reason not to exercise.

"Do you have any plans for the weekend?"

"Saturday, I have a meeting, but Sunday is free."

"Let's go hiking in Griffith Park."

"Gosh, I haven't been hiking in a long time. Sounds like fun."

"I think we can get a bus to the Ranger Station and pick up a map of the trails there. I know it isn't far from there to a fire road where I used to start a lot of hikes."

"Well, okay. What time do you want to go?"

"We'll work that out later. I know it won't be a hot day, so we can probably go late in the morning."

"Sounds good. Call me later."

Note: Griffith Park is the largest city park in the United States, covering over 3,000 acres and having over 55 miles of hiking trails. It is located in a mountainous area between Los Angeles and Burbank, California.

Some readers, but certainly not all, might be surprised to find that one of the two people having the above conversation is a blind diabetic. I know that the conversation was initiated by a blind diabetic because I am that blind diabetic.

Forms of exercise like hiking, jogging, swimming, horseback riding, bicycling, and weight training have been a part of my life for many years.

I am convinced that I have remained relatively healthy despite 38 years of Type I diabetes and twenty years of blindness, because I live an active lifestyle that includes regular exercise.

I must confess that in the last few years, I have found it more difficult to muster the energy it takes to get out and exercise. This is because of a worsening in my diabetic kidney disease and the resulting increase in fatigue. Yet, I know that exercise is an energy giver and that I must continue to pursue physical activity.

The hiking conversation above took place last weekend. The resulting hike was over five miles of mountain roads and trails with about a 1,000 foot gain from our starting point to the highest point on the trail. It obviously required stamina that I wasn't sure I still had. But I did. And with a little conditioning, I am sure

that I can build more stamina and thereby stay as healthy and active as possible.

This is my experience. I recognize that I might not have had this experience if not for the encouragement I received from active blind people shortly after becoming legally blind. Even very active people tend to become sedentary when they first lose their eyesight. This is because they lack both the skill in alternative techniques such as the use of a white

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*Voice of the Diabetic is a national publication of the Diabetics Division of the National Federation of the Blind. It is read by those interested in all aspects of blindness and diabetes. We show diabetics that they have options regardless of the ramifications they may have had. We have a positive philosophy and know that positive attitudes are contagious!*

News items, change of address notice and other magazine correspondence should be sent to:

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With proper training and opportunity, the average blind person can do the average job in the average place of business and do it as well as his sighted neighbor. Blindness can be reduced to the level of a physical nuisance. When a blind person, otherwise qualified, is denied the right to enter a college or university, apply for a job, take a civil service test, denied the right to ride on a plane, purchase insurance or eat in a restaurant simply on the grounds that he/she is blind, this constitutes unreasonable prejudice and discrimination. Such things happen.

This is why the National Federation of the Blind has come into being. Blind people are now working as sci-

entists, farmers, lawyers, machinists, electrical engineers and secretaries. They are living normal lives as businessmen and women, housewives, mothers and teachers. The discriminations which exist are based upon a lack of understanding, not hostility.

This is why the National Federation of the Blind brings its story to the public, and this is why such tremendous progress is being made. For further information about our aims and programs or about blindness, write to Mr. Marc Maurer, President, National Federation of the Blind, 1800 Johnson St., Baltimore, MD 21230; phone: (301) 659-9314, or contact your local federation chapter. The National Federation of the Blind is the blind speaking for themselves with a positive voice.

## Know your rights as a patient

by Susan Mahler

Once you enter a hospital or other health-care facility, it's easy to be intimidated by brusque doctors, technical language and foreign surroundings. In such an environment, many patients hold back questions about their condition or treatment. Instead of refusing unnecessary tests or substandard care, they submit.

It's important, say medical and legal experts, to anticipate problems *before* you enter the hospital. According to Leonard Glantz, J.D., professor of Health Law at Boston University School of Public Health, you should discuss details of your hospital stay with your physician, read the hospital's policies regarding patients' rights and ask others about their hospital experiences.

### A Patient's Rights

Guidelines for the protection of your rights in a hospital have been established by a number of medical organizations and by some states (see box). Unfortunately, many patients often remain unaware of these safeguards, because health-care professionals themselves may be ill informed. "Doctors know almost nothing about patients' rights," says George J. Annas, J.D., M.P.H., a professor of Health Law at Boston University School of Public Health and author of *The Rights of Patients* (Southern Illinois University Press). In addition, only about 25 percent of American hospitals distribute specific information about such rights.

### Advocacy Programs

Today patients are demanding a change. "We can't blindly release ourselves to medical care," says Paula Carroll, founder of Consumers for Medical Quality, Inc., a consumer advocacy group in Merced, California. "The price—both economic and emotional—is too great."

One promising step has been the establishment of patients' advocacy programs in more than half of the na-

tional's hospitals. Employed by the hospital, trained advocates try to solve patient-care problems ranging from getting the wrong meal tray to securing a second opinion.

The system is not without its critics, however. "At best the advocate has a mixed loyalty, to you and to the hospital," says Annas. According to Carroll, "In dealing with hard-core issues, such as securing your medical records or reporting negligence, it's going to take someone from outside."

### Getting Help

If you feel your rights as a patient have been ignored, first try to solve the problem through hospital channels. "Go up the chain of command, starting with the patient advocate and ending with the hospital administrator," says Charles Inlander, president of the People's Medical Society, a consumer advocacy group in Allentown, Pennsylvania. "But don't wait too long. Studies show the assertive patient gets the best treatment."

Inlander suggests seeking outside help when you sense a lack of cooperation. If the matter is hospital-related, contact the State Department of Health or the Joint Commission on Accreditation of Healthcare Organizations (JCAHO); if a physician is involved, call or write the State Board of Medical Examiners. Keep a copy of all complaint correspondence. If your complaint warrants legal action, remember that the statute of limitations—the time in which you can begin litigation—varies considerably from state to state.

### Problems You Can Solve

Here are some common situations in which your rights as a patient might be challenged, and how to deal with them.

**Unnecessary tests.** Some routine medical procedures, such as a chest X ray and blood chemistry, have long

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## Know Your Legal Rights

Dealing with illness and injury is difficult enough without having legal complications. Here, lawyer Thomas Hauser discusses four patient-physician problems you might encounter.

**Paying for canceled doctor's appointments.** Unless there's a specific understanding to the contrary, most courts assume that a reasonable cancellation clause is built into a doctor's appointment. Your doctor might be entitled to reimbursement if you fail to cancel an appointment and simply don't show up. But if you cancel ahead of time, you probably won't have to pay, particularly if the doctor can fill your slot with another patient.

**Exorbitant doctor's bills.** You don't necessarily have to pay a doctor's bill you think is too high. You and your physician have a contractual relationship. He or she agrees to provide certain services, and you agree to pay for them. But if the price isn't discussed, you're obligated to pay only a reasonable amount.

Among the factors to be considered will be the going rate for the treatment provided, your doctor's expertise and the amount of time you spent together. If you refuse to pay, your doctor will bear the burden of proving in court that the amount charged was fair.

**Hospital-release forms.** Hospitals often require patients about to undergo surgery to sign a form consenting to whatever medical procedures the hospital staff might apply. Frequently, this is done in the interests of good medical care. For example, if a doctor performing an appendectomy discovers an unrelated malignant growth, he may remove it, provided the patient doesn't lose a bodily function not discussed prior to surgery. However, these consent forms, or waivers, don't excuse a hospital from liability for malpractice. They apply only to sound medical procedures. Also, a waiver might be considered invalid if signed under duress or if you were misled about the surgical procedures and possible risks involved before signing.

**Emergency-room treatment.** Can a hospital emergency room turn you away if you don't have medical insurance and you can't pay the bill? Federal law requires all hospitals that admit Medicare patients to provide stabilizing treatment to any individual with an emergency condition. Some states have statutes that specifically impose this obligation on all hospitals. And courts in virtually all other states have arrived at a similar view, regardless of whether the hospital is considered a public or private facility.

## Know your rights

(Continued from page 3)

been standard hospital protocol. But depending on your cause of admission, says Michael Rooney, director of projects at the People's Medical Society, these tests may not be necessary. And with insurance companies scrutinizing extra services, patients need to be more vigilant. "It's important to discuss with your physician prior to admission what tests you'll need," says Rooney. He adds that having tests done before admission when possible will cut your costs.

**A second opinion.** With the inflated costs of some medical tests and procedures, more people are seeking second and even third opinions before going ahead with treatment. In fact, some insurers require a second opinion before elective surgery. Although this is considered fair practice, you may encounter resistance from a physician. "Some doctors

might take this as a criticism," says Joan H. Marks, M.S., director of the master's program in Health Advocacy at Sarah Lawrence College in Bronxville, New York, "but most would welcome confirmation of their diagnosis." If you do find it difficult to talk to your doctor, she adds, the patient advocate can often serve as an intermediary.

**Nighttime awakenings.** "I'd feel a lot better if they'd stop waking me up in the middle of the night to take my temperature," a hospitalized friend jokes when asked how she's feeling. In fact, a nurse may have to disturb a patient's sleep in order to monitor vital signs or administer medication. According to Glantz, however, the disturbance may not be necessary. "Find out why you're being wakened," he says. "Is it for the convenience of the staff or for a medical reason?" Your physician may be able to alter your medication schedule.

**Choice of physician.** Although you are assigned a primary physician upon entering the hospital, you may want to bring in a private specialist. "You have the right to change physicians," says Glantz, although there should be a sound reason. If you are undergoing surgery, you can also indicate the person you want to perform the surgery by writing his or her name on the consent form.

**Errors in medication.** According to Rooney, there are about 360 medication errors daily in an average-size hospital. "The best way to protect yourself," he says, "is to know the medications you're taking and your dosage schedule." If the nurse brings a white pill when you know you've been taking yellow ones, voice your concern.

**Refusing treatment.** According to Annas, it is your legal right to refuse any treatment or to choose an alternative that has not been recommended. The physician may then opt not to treat you but must help you find a doctor who will.

For example, a DNR, or Do Not Resuscitate order, indicates that you do not want to be resuscitated in the event you suffer a cardiac arrest. You can request information about the DNR when you enter the hospital. Another document, called a living will, enables you to specify whether you want to be sustained through artificial means, such as a respirator, dialysis machine or feeding tube, if your condition is determined to be hopeless. You can also authorize someone to enforce your wishes on your behalf, giving him or her durable power of attorney. According to Ruth Ravich, director of the patient representative department at Mount Sinai Medical Center in New York, you should prepare the living will before admission to the hospital, and your family, lawyer and physician all should have copies. "The living will serves as one of the best forms of evidence of the incompetent patient's wishes," says Annas.

**Getting your hospital records.** Although generally you will not need to

## The Diabetics Division of the National Federation of the Blind

The Diabetics Division of the National Federation of the Blind (NFB) is a support and information network for diabetics in general, but especially blind diabetics. Many of our members have sustained at least one ramification of diabetes: blindness, amputation, nerve damage, heart problems, kidney disease, sexual dysfunction, etc. Others have experienced no chronic complications of the disease, but want to use our services, learn more about diabetes and be part of a caring support group. We, in the Diabetics Division of NFB, attempt to reach out to fellow diabetics who may be finding it difficult to cope with the problems that accompany diabetes.

The most far-reaching medium of our support network is our quarterly magazine, *Voice of the Diabetic*. Each issue of *The Voice* contains personal, candid stories written by diabetics, their friends, and anyone whose experiences with diabetes and its complications might be helpful to others traveling the same road. Our magazine is an upbeat outreach publication that emphasizes the importance of good diabetic control, diet, and especially independence. We show diabetics that they have options, regardless of what side effects they may have experienced. Research and medical news about diabetes, as well as a column which features medical questions answered by an insulin dependent physician, are popular columns. *The Voice* also features a "Recipe Corner" that lists diabetic exchanges.

*The Voice* regularly features a resource column of aids and appliances to help blind diabetics independently take care of their disease. Also, the Diabetics Division of the NFB compiles a list of aids and appliances which provides locations to obtain equipment for diabetic self management.

Membership in the Diabetics Division of NFB is a mere \$2.00 a year and includes a year's subscription to *Voice of the Diabetic*, in print or cassette. Our institutional and professional magazine subscription rate is \$8.00 per year. We encourage you to become a member of the Diabetics Division of the National Federation of the Blind and take an active role in our dynamic support network.

Committees presently in full swing and support for anyone with the need include the following: Amputations and Prevention, Insulin Pump, Legislative, Pancreas Transplantation, Resource Library, Resources (Aids and Appliances), Renal Failure: Dialysis and Kidney Transplantation, and Sexual Dysfunction/Male Impotence.

We are here to lend a helping hand, a thoughtful word of encouragement and answer many questions and problems as they arise.

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For a complimentary copy of *Voice of the Diabetic* in print and/or cassette, contact the editor, Ed Bryant.

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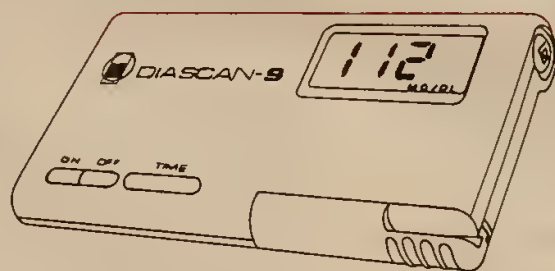
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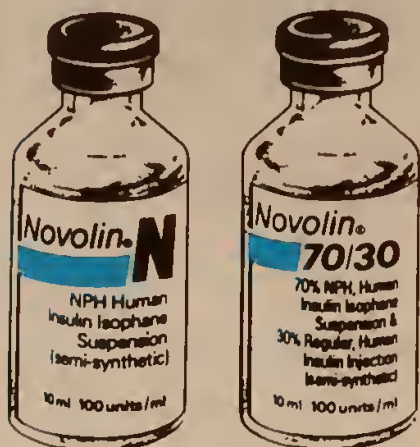
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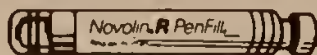
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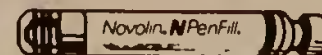


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## Self management for the blind

by Ed Bryant



Ed Bryant, editor, *Voice of the Diabetic*, explains how blind diabetics can safely and accurately draw insulin and give injections.

(Editor's Note: This article first appeared in the *Voice of the Diabetic*, Volume 4, Number 1. I am constantly asked questions that are covered in this article. Consumers can learn a lot by reading questions posed by other blind diabetics.)

In my conversations with rehabilitation employees from different parts of the country, I sometimes find that they do not believe that a blind diabetic can be independent. How unfortunate.

Sometimes the people who are paid to teach the blind independence fail to do so. Being shown alternative techniques is essential if one is to become active in the mainstream of society. Part of what *Voice of the Diabetic* attempts to do is show all people that being blind is not the great tragedy it is often thought to be.

Recently I received a tape of a survey developed by the Oregon Commission for the Blind. The survey was developed by the Commission in conjunction with blind diabetics who manage their own disease through alternative techniques. The purpose of the survey was to inform other blind diabetics of the different techniques that they can use to self-manage their diabetes and lead active lives. Following are the questions that were asked, and my own responses.

1. How long have you been a diabetic?

I've been a diabetic for about thirty years.

2. How long have you been blind?

About twelve years.

3. When did you start using insulin gauges to draw your own insulin?

About nine years ago. When I first became blind, I did not use gauges because I did not realize that gauges were available. My mother drew a seven-day supply of insulin for me

every week, but this prevented me from being the independent person I always was. I did some investigating and discovered that there were gauges available that would allow me to draw up my own insulin. Naturally, I purchased one. But these gauges were expensive. So after a while, I designed my own insulin gauge, which I later had custom-made. I have been using this gauge for several years with no problems.

4. Do you mix your own insulin?

Yes, I mix my own insulin. Currently, I use Human-Regular and NPH insulin.

5. What were some of your questions and concerns about self-administering insulin as a blind person and how did you resolve these questions?

I had questions and concerns, as do most diabetics who go blind, like:

-- How to know when an insulin vial is getting low

There are many methods you can use to figure out how long a vial will last. For example, each time you use a vial of insulin, gently shake it. With practice, it will be easy to determine if it is full, half-full or nearly empty. You are probably using U-100 syringes. If you are, you should be using U-100 insulin. Each vial of U-100 insulin contains 1000 units.

-- When to replace an insulin vial

When I open a new vial of insulin, I carefully calculate how many days that particular vial will last. For example, I use a total of 20 units of Regular insulin daily. If I were to divide the 1000 units

(10 cc) of a new insulin vial by the 20 units I use daily, one vial would last me about 50 days. But I must be careful that in drawing out the insulin, I do not inadvertently draw out air. So, as a safeguard, I assume that the new vial only contains 900 units (9 cc) and will only last me 45 days, instead of 50. As long as there are at least 60 units of insulin in the vial and the diabetic is careful about keeping the vial in a straight up-and-down position while drawing out insulin, there is no danger of drawing out air.

Another way of keeping track is to set aside the number of syringes that will be needed for 900 units of insulin. You could use any objects, such as toothpicks, straws, etc.

-- Discarding vials of insulin that have 60 to 100 units of insulin remaining

After using up a new vial, the insulin in the old vial can be drawn out and transferred. This will save money, but there is one caution. After a period of transferring insulin, the insulin will become outdated and should not be used. If people want to use this procedure, they should make sure that the insulin they're using has not expired.

-- How to be sure an insulin gauge is measuring insulin correctly

The first few times I used my insulin gauge, I had a sighted person who was used to working with insulin syringes check it for accuracy. I had had absolutely no problems, but all diabetics must have a method to "keep an eye" on their diabetes. Blood glucose

(Continued on page 14)



## Cold facts on diabetes

by C. Eron

Children's chances of developing diabetes vary dramatically, depending in part on where in the world they live, according to the first international collaborative effort to examine the incidence of insulin-dependent diabetes mellitus (IDDM) in children. The study documents wide variation in its occurrence, with the average annual incidence for children under age 15 ranging from 1.7 per 100,000 per year in Japan to 29.5 per 100,000 in Finland.

The project, begun in 1986, is based on 24 registries in 15 countries. U.S. incidence ranges from a low of 9.4 per 100,000 in San Diego to 20.8 per 100,000 in Rochester, Minn. These differences in incidence are greater than those of most chronic disease, notes the Diabetes Epidemiology Research International Group, reporting in the August *Diabetes*.

The work corroborates a previously observed connection between climate and IDDM risk, with higher risk in colder regions. Examining race and ethnicity as factors, the group found lower risk among U.S. blacks and Hispanics than among U.S. whites. In New Zealand, children of European descent are at three times the risk of the Maoris and Polynesians.

Causes of these "extraordinary" distribution differences remain unknown, says Marian Rewers of the University of Pittsburgh, who took part in the study. Both genetic and environmental factors appear necessary for the disease. Thus, the study group cautions that in future studies researchers must take care in interpreting geographic and climate factors in relation to such factors as lifestyle, diet, ethnicity and the prevalence of certain viruses.

Another study published this month echoes the theme that in diabetes, things are not always what they seem. In treating IDDM, many physicians attempt to keep blood sugar levels as close to normal as possible with intensive insulin therapy. This "tight control" approach, many believe, delays or prevents diabetes' serious complications, such as kidney failure, heart disease and blindness. But first year results from a 10-year investigation of the benefits or drawbacks of the approach show it may lead to weight gain, which itself has potentially adverse consequences.

The report of the Diabetes Control and Complications Trial, which confirms and extends the findings of smaller, uncontrolled studies, appears in the July/August *Diabetes Care*. The study involves 278 diabetics who are receiving a standard or experimental treatment. Both groups follow careful diets and self-monitor their glucose levels. Patients in the standard group give themselves the

one or two daily insulin injections typically used to treat IDDM. Experimental patients give themselves more than three injections a day, or receive continuous insulin from an infusion pump, and adjust their diet and insulin to maintain strict glucose control.

Those in the intensive group gained "significantly more" weight in the first year: 5.1 kilograms versus 2.4 kg in the standard group. The researchers detected no relation between these weight changes and re-

ported caloric intake or exercise. This leads them to suggest that improved utilization of calories produced the weight gain. "It was predictable, but this is the most scientifically valid demonstration yet that insulin causes people to gain weight," says Simeon I. Taylor of the National Institute of Diabetes and Digestive and Kidney Diseases, in Bethesda, Md. "It's an exquisitely well-controlled study."

Although the significance of the weight gain remains unclear, the re-

searchers cite two negative implications. Patients' concerns about unwanted weight gain could diminish compliance with treatment, they note, and if weight gain persists, it could lead to higher blood pressure and increased risk of cardiovascular disease.

(Note: Reprinted with permission from *Science News*, the weekly news magazine of science, copyright 1989 by Science Service, Inc.)

## Keeping the hidden balance

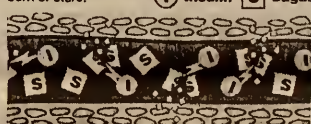
In its more common form, diabetes appears gradually. Patients often are unaware of it until it is discovered through routine tests or when serious complications arise. Here's a look at what diabetes is and what it does to the body. (Note: This article appeared March 2, 1990 in the *Ledger*, Mexico, MO.)

## What is diabetes?

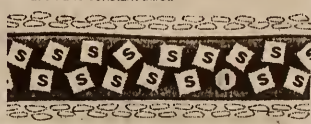
Diabetes results from a lack of the hormone insulin, which is secreted by the pancreas and metabolizes, or breaks down, glucose (blood sugar) into energy the body can burn or store.



① Insulin S Sugar



When there is a lack of insulin in the blood, the body is unable to metabolize sugar. As a result, cells are starved for energy, causing constant hunger, and the blood is overloaded with sugar, leading to frequent urination and constant thirst.



## Types of diabetes

**Type I**, or juvenile diabetes, is a rare and severe form of the disorder that appears in people younger than 35, usually from ages 10 to 16. The pancreas produces no insulin. Without regular injections, the patient becomes comatose and dies.

**Type I**  
200 per  
100,000  
people

**Type II**, or adult-onset diabetes, is more common. Onset is gradual and occurs mostly after age 40. Some insulin is produced, but not enough to meet the body's needs. Insulin injections are usually unnecessary, as it can be controlled through diet, exercise and oral medication.

**Type II**  
2,000 per  
100,000  
people



## Risk groups

- People with a family history of diabetes
- People older than 40
- Overweight people



## Control methods

- Weight reduction
- Reducing sugar intake
- High-fiber diet
- Exercise
- Medication

Symptoms  
Complications

## Normal



## Diabetic



Fatigue  
Coma

Blurred vision  
Vision loss or blindness

Constant thirst

High blood pressure  
heart disease  
damage to blood vessels

Kidney damage

Frequent urination

Urinary-tract infections;  
vaginal yeast infections

Muscle weakness

Tingling and numbness in extremities  
Foot ulcers;  
gangrene

## Social Security: Facts you should know concerning disability insurance

by James Gashel



James Gashel, Director of Governmental Affairs, National Federation of the Blind, has much expertise with all types of disability insurance for the blind.

(Note: This article appeared in the *Braille Monitor*, March, 1990, published by the National Federation of the Blind (NFB). For information regarding any aspect of disability insurance for the blind, contact James Gashel, Director of Governmental Affairs of the NFB, 1800 Johnson St., Baltimore, MD 21230; telephone: (301) 659-9314).

Social Security Disability Insurance, known by its initials as "SSDI," protects working persons from the complete loss of income in the event of a disability. Cash benefits are payable to disabled workers and their dependents. Medicare coverage is also provided after two years of eligibility for SSDI checks. SSDI is operated under the principles of insurance, not welfare. Hence, being poor is not an eligibility requirement.

These concepts are generally applicable to blind persons as well as to persons with other disabilities. How-

ever, several rules apply in special ways to the blind. These and other significant eligibility provisions may be categorized as follows: (1) the blindness requirement; (2) the substantial gainful activity test; (3) impairment-related work expenses; (4) fully insured status; (5) recent work test; (6) period of disability; (7) disability freeze; (8) trial work period; (9) working blind age 55 to 65; (10) dependents' benefits; and (11) Medicare.

**The Blindness Requirement:** Blindness is a qualifying medical condition, having a specific definition in the SSDI program. A person is regarded as blind if central visual acuity is 20/200 or less in the better eye with the best correcting lens or if the field of vision is 20 degrees or less. Anyone whose vision is restricted enough to meet this definition qualifies medically as "blind." This is the critical first step in establishing eligibility for benefits.

**Substantial Gainful Activity:** The concept of "substantial gainful activity" (SGA) is used in Social Security to determine whether or not a blind person will be entitled to SSDI checks. Thus, blindness is not the only factor to be considered. SGA is an evaluation of any work which a person may be doing. To be eligible for benefits, a blind person may not perform SGA, or, in other words, have "countable earnings" exceeding \$780.00 per month during 1990. The precise amount of "countable earnings" permitted per month is increased beginning in January of each year. "Countable earnings" generally refers to income before taxes, less any amount of income that does not actually represent payment for work performed. Any impairment-related work expenses must also be subtracted from income to reach "countable earnings." SGA is intended to be a measure of a person's

ability to work, not a measure of income. Income subsidies and other benefits that do not result from work should be subtracted from monthly earnings in order to reach the "countable earnings" used to determine SGA.

**Impairment-Related Work Expenses:** If a blind person who works has expenses attributable to blindness and necessary for doing the work, these costs may also be deducted from income in order to determine SGA. Payments to readers, purchases of aids, and special transportation expenses (if suitable alternatives are not available) are examples of deductible impairment-related work expenses. These deductions will offset earnings which must otherwise be counted in determining SGA. Hence, they can make the difference between eligibility and ineligibility for benefits.

**Fully Insured Status:** In addition to meeting the blindness and SGA requirements, a blind person must have worked long enough under Social Security-covered employment to be "fully insured." How much work depends upon a person's age at the onset of blindness or at the time the individual ceases to perform SGA. Two general rules can be stated: one applies to persons age 21 in 1950 or before, and the other applies to anyone younger than this. A blind person in the former group must have enough quarters of Social Security-covered employment to equal the number of years beginning with 1951 up to and including the year before

the year of disability onset. For persons who became age 21 after 1950, begin counting the years starting with the year after the year in which the person became 21. Count forward up to and including the year before the year of disability onset. For a blind person, the term "disability onset" may be defined as the point at which both of the following conditions exist simultaneously: (1) the individual is statutorily blind; and (2) the individual ceases to engage in SGA. If both of these conditions do not begin simultaneously, the year of disability onset will be the year in which both conditions first exist. Six quarters of covered employment is the minimum for SSDI eligibility. However, most persons will need more quarters, depending upon age and the year of disability onset. The circumstances are strictly individual.

**Recent Work Test:** Blind persons are exempt from a "recent work" requirement, which applies to individuals with other disabilities. For a blind applicant, this means that quarters of covered employment will be counted no matter when they occurred. The "recent work" rule for others (not the blind) requires covered employment in five of the most recent ten years. Hence, disabled persons who are not blind must be fully insured and have recent work, but only the former requirement applies to the blind.

**Period of Disability:** A "period of disability" may be established for any blind person who works under Social Security-covered employment. The

(Continued on page 9)

## Compound may help fight arthritis, diabetes

A new approach to therapy of rheumatoid arthritis and many other diseases—such as diabetes, septic shock and inflammatory bowel disease—may arise from new research to be reported Thursday in the British journal *Nature* by a group of Colorado scientists.

Molecular biologists from Syngen Inc. and the University of Colorado, both in Boulder, Colo., have isolated from human white blood cells a naturally occurring component that halts the progress of arthritis in rodents, and they hope to begin human trials this year.

The newly discovered compound, called IL-1ra, inhibits the immune hormone interleukin-1. Excess production of interleukin-1 has been implicated in many so-called autoimmune

diseases, such as arthritis and diabetes, in which the immune system attacks its host.

More than 2 million Americans, twice as many women as men, have been diagnosed with rheumatoid arthritis, which is marked by stiffening and pain in joints and their eventual destruction.

Meanwhile, other researchers are testing IL-1ra's effects in animals against a variety of other diseases.

"It's a nice piece of work, and I hope it will prove useful," said immunologist Joost Oppenheim of the National Cancer Institute in Bethesda, MD. "I wish I had done it."

(Note: This article appeared January 25, 1990 in the *News-Press*, Ft. Meyers, FL.)

## New diabetes test

According to an Associated Press release this week, a company says it has developed a painless way for diabetics to test their blood sugar level without having to prick their fingers for blood samples.

David Purdy, president of Biocontrol Technology Inc. of Indiana, Pa., said Friday that the company's new sensor uses electromagnetic technology to measure blood glucose levels.

A sensor about the size of a cereal box should be ready for sale in about a year for use in doctors' offices, Purdy said. A home-use model about the size of a portable telephone should be available in two years.

"It's an intriguing development. If it works and does what they claim, it would be a very important contribution to the care of the patient with diabetes," said Jay Skyler, vice president of American Diabetes Association and professor of medicine at the University of Miami.

"One of the major things patients complain about is having to stick their fingers. It really does get to be a nuisance," he said.

The new glucose sensor uses a wand to direct an electromagnetic beam through the skin, usually on

the inside of the wrist, Purdy said. The beam is refracted by varying amounts of blood glucose and returns through the wand to the sensor's circuitry.

The test takes two seconds, and the sensor provides a visual readout and a paper printout of the analysis.

More than 11 million U.S. citizens have diabetes, including more than 6.5 million who have been diagnosed.

We mention this now because many of you have diabetes, including probably some who have not been diagnosed. As your editor is a diabetic, we know well the benefits of the new blood test.

Like many of you, we did not pay any attention to diabetes, because it was a disease someone else had, and we did not see any reason to have any knowledge about it. How wrong we were! You could be in the same position some day and at that time you will appreciate the new blood test more than we can convince you now.

(Note: This article appeared September 28, 1989 in the *Milan Standard*, Milan, MO.)



(Continued from page 8)

period of disability begins when both of the following requirements are met: (1) the individual is statutorily blind; and (2) the individual has worked long enough under Social Security-covered employment to be fully insured. SSDI checks are payable to a blind person who meets these "period of disability" requirements and is not performing SGA. For blind persons who are performing SGA, the period of disability continues even though entitlement to cash benefit ceases.

**Disability Freeze:** A "disability freeze" occurs for any blind person when a period of disability is established. The freeze protects a blind person's Social Security earnings record from the effects of low or no earnings during the period of disability. If the disability freeze is not applied, virtually all of a person's adult working years (including years of no earnings) must be counted in figuring the earnings' average used to establish a monthly benefit amount. So the disability freeze for a blind person exempts from the average all years within a period of disability and is only used if exempting these years would result in a higher benefit. Conversely, if applying the freeze would result in a lower benefit amount, the exemption will be disregarded in order to pay the highest benefit possible.

**Trial Work and Extended Eligibility:** A person who receives SSDI checks after an initial five-month waiting period is also entitled to one "trial work period." This is a period of nine months, used for evaluation of the work, plus three "adjustment" months, during which benefits are automatically payable. Entitlement to benefits continues uninterrupted during the "trial work period." The first nine months of trial work need not be consecutive. A month is counted as a trial work month any time a beneficiary earns at least \$200.00.

After the first twelve months of trial work, a thirty-three-month "extended eligibility period" begins. Re-entitlement to benefits is automatic if work stops any time during this period. During the first twelve months of the trial work period, earnings of any amount are permitted. However, if during the first nine months of trial work, the earnings are regularly above the amount considered to be SGA, entitlement will be suspended after the twelfth month of trial work. On the other hand, if earnings are less than SGA, checks will continue uninterrupted as long as the blind person is not found to be performing SGA.

During the thirty-three month "extended eligibility period," entitlement to benefits may be suspended on a month-by-month basis, depending upon earnings each month. Checks are payable for months when SGA is not performed. Conversely, there is no entitlement to a check for any month when earnings exceed the SGA amount. If work with countable earnings above SGA continues at the end of the entire forty-five-

month trial work and extended eligibility periods, eligibility is terminated, and a new application must be approved to have disability benefits reinstated at any point in the future. If, however, earnings from work do not exceed SGA (or if there are not earnings at all), entitlement to SSDI checks will continue indefinitely.

**Working Blind Age 55 to 65:** Blind persons age 55 but not yet age 65 may work while still having the assurance of receiving disability benefits during any month when SGA is not performed. This is the effect of a

special rule which allows continuing eligibility for blind persons in this age group who are unable to perform work requiring skills or abilities comparable to the work they did regularly before reaching age 55 or becoming blind, whichever occurred later. Under this rule, SGA is considered on a month-by-month basis just as it is during the thirty-three month period of extended eligibility for a blind person under age 55. In other words, entitlement to benefits is suspended for any month of SGA and reinstated for any other month.

**Dependents' Benefits:** Eligibility for cash benefits from Social Security is also extended to blind persons who have not worked but qualify as dependents or survivors of others. For example, a blind person may be a dependent of someone who is an SSDI beneficiary, a retired person receiving Social Security retirement benefits, or someone who died after becoming fully insured. Blind children, blind adults, blind widows, and blind widowers may all be entitled to regular Social Security checks as de-

(Continued on page 10)

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## Social Security

(Continued from page 9)

pendents.

**Medicare:** Blind SSDI beneficiaries automatically become entitled to Medicare payments for covered medical expenses after twenty-four months of eligibility for cash benefits. These months of eligibility need not be consecutive. Medicare pays hospital and doctor expenses under certain rules and limitations, which apply

equally to blind, disabled, and retired persons receiving Social Security checks. If a person works enough to become ineligible for cash benefits, Medicare eligibility may continue for forty-eight months of work. This includes the forty-five-month trial work and extended eligibility periods. If a beneficiary becomes ineligible for SSDI checks, but eligibility resumes in the future for the same or a related disability, Medicare eligibility should also resume with the first month of entitlement to cash benefits.

## Courage

by Royanne R. Hollins



Royanne R. Hollins has diabetes, and says, "Having a chronic illness sometimes forces our hand to use resources within us that many others never have the opportunity to experience."

It takes courage. The ability to conquer fear or despair. A quality of mind or temperament that enables one to stand fast in the face of opposition, hardship or danger. Courageous. Courageousness. Courageously. Dauntlessness. Guts. Heart. Mettle. Resolution. Spirit. Spunk.

Courage ... we all have it to one extent or another. However, there are times when a person's courage really stands out in the minds of others. That is, in the minds of other people who are watching and experiencing this person's courage.

Living with diabetes requires a certain amount of courage in all of us. An ability to conquer fear or despair ... a quality of mind or temperament that enables us to stand fast in the face of opposition, hardship or danger.

We may feel that everything is opposed to us. Simple illnesses become life threatening at times. We may feel we have various hardships to overcome. This is especially true when and if complications set in. We may even feel we are in danger. We are. We are in danger of losing our very lives.

Courage. What a large order to fill. When courage is thought of as a "quality" of mind or temperament, it

is easier to attain. We do not have to conjure up visions of successful people or those who have conquered all odds and survived great catastrophes. All we need to understand is that courage deals with a *quality* of mind or temperament. It is an ability to overcome. It is an inner strength that so many of us have found and tapped into strongly.

When you take each day one step at a time, things are not as overwhelming as they may seem to be at first glance.

Courage is one of the foundations of our life. It takes courage to be honest with your physician and work with him compliantly to control your diabetes ... It takes courage to sit in your physician's office and listen to the news of the diagnostic study results telling you that a complication you had feared most is now setting in ... It takes courage to take the news of a complication and act upon it ... It takes courage to continue your life, day to day, knowing that your future is at risk as these complications set in ... It takes courage to go to your first dialysis treatment ... It takes courage to undergo laser treatments over and over and over again on your eyes ... It takes courage to find hope in everyday living ... It takes courage to accept your certification of legal blindness ... It takes courage to go to mobility training to learn to use a white cane in order to get around on your own ... It takes courage to learn Braille ... It takes courage to continue living day to day ... It takes courage to trust the physicians who are caring for you during your hospitalization ... It takes courage to encourage other members of your family — your spouse, your children, your parents, and your friends ... It takes courage to find hope, trust and faith ... It takes courage to make the proper decisions in your diabetes self-care.

Yes, it takes courage. Some of us may think we are lacking in this area of our lives, but if you were to sit down and take stock of all that you are, of all that you do, and of all that you stand for, you would find much courage that you didn't even realize existed. As I recently learned from my mobility instructor, we must take it ONE STEP AT A TIME. That is true of

*If you or a friend would like to remember the Diabetics Division of the National Federation of the Blind in your will, you can do so by employing the following language:*

*"I give, devise, and bequeath unto Diabetics Division of the National Federation of the Blind, 1800 Johnson Street, Baltimore, Maryland 21230, a District of Columbia nonprofit corporation, the sum of \$\_\_\_\_\_ (or \_\_\_\_\_ percent of my net estate" or "the following stocks and bonds: \_\_\_\_\_") to be used for its worthy purposes on behalf of blind persons."*

our learning to use a white cane, to mobilize with a seeing eye dog, to learn new therapy for our diabetes, to understand the complication we are experiencing, to live through the different phases of grief, denial and acceptance. It is all done ONE STEP AT A TIME.

We are not so much different from the non-diabetics of this world. Courage is very much a part of everyone's life, whether they realize it or not. Having a chronic illness sometimes forces our hand to use resources within us that many others never have the opportunity to experience.

As you become more and more aware of the courage that you have within you, use that courage for good. Use that courage to ... encourage ... share ... conquer fear or despair ... stand fast ... in the face of opposition ... hardship ... or danger.

It is not always easy to find hope, trust, faith and courage. However, if we can remember that there is a wealth of strength just waiting for us, it may help us more easily deal with complications. Am I trying to say we should not be angry or sad or upset or depressed about our complications? No, not at all. Just go beyond those feelings and tap into that quality of mind or temperament that enables you to stand fast in the face of opposition, hardship or danger, to have that ability to conquer fear or despair. We all have it. Now let's use it.

### Postscript from the editor:

Royanne R. Hollins is a member of our NFB Diabetics Division, and is like thousands of diabetics who have either gone blind or are losing vision and face possible blindness. Often these individuals simply don't know how to handle the loss of eyesight.

All diabetics are at risk of losing vision and going blind from diabetic retinopathy. However, it usually takes 15 years or more for substantial loss of sight to develop. It can be difficult for a person leading an active lifestyle to be unable to drive their automobile or read normal size print clearly because of blindness. Blind men and women, with opportunity and the use of alternative techniques, can continue being active citizens.

Our organization, the National Federation of the Blind, with more than 50,000 members, is the largest group of organized blind persons in existence. We serve all blind people,

and offer numerous publications and literature covering all aspects of blindness. Many appliances are available, such as long white canes (at just enough to cover our costs), to serve the blind. The NFB offers comprehensive information about programs set up to assist the blind, such as Social Security Disability Insurance, and cosponsors with the U.S. Department of Labor a job referral program, "Job Opportunities for the Blind." This program has helped an estimated 1,800 blind job seekers find employment.

We have a positive philosophy and can show blind persons and those losing vision how they can continue to be active, productive members of society. Blindness is not synonymous with disability, and it is well documented that limitations are usually self-imposed.

Many weeks after I received Royanne R. Hollins' article, she sent correspondence which said in part, "I have begun learning Braille. It is very exciting to learn. I am just now through the alphabet and numbers and write with the Perkins Braille. I will learn the slate and stylus and some Braille shorthand as well." Also, Royanne writes, "I traveled from Sacramento to Chicago after getting a 'crash course' in mobility training and learning how to get around with my white cane, as my nighttime vision is nonexistent. Pulling out my white cane was a major hurdle for me. I felt self-conscious and a little embarrassed. As I learned that my white cane is a 'tool' for my exclusive use and became less self-conscious about it, it became my 'Pal'. Now my 'Pal' is with me always. I am currently in an extensive mobility training program to pick up all of the skills that had been left out of the 'crash course' for lack of time. I even learned our local public transportation system. I know how to get myself to and from work and doctor's appointments without having to ask for any more 'favors'."

Royanne R. Hollins is employed full-time as a paralegal. She knows, like members of the National Federation of the Blind, that going blind is no reason to hibernate and not be an active member of society. She has learned that having a good attitude and learning alternative techniques are important elements when faced with blindness.



## Diabetic retinopathy: causes and treatments

Diabetes mellitus is a complex disease that affects the body's ability to use and store sugar. Forms of the disease can affect people of all ages, and symptoms can occur at varying speeds. Diabetes manifests itself throughout the body, causing damage to the circulation, the kidneys, and the eyes.

It is estimated that approximately 6 million Americans suffer from diabetes, and eight percent of this population is legally blind. Diabetic retinopathy is the leading cause of new blindness in Americans aged 20 to 74.

### How does diabetes occur?

Diabetes is characterized by elevated blood sugar levels, increased thirst, increased urination, and damage to blood vessels. These results are caused by the body's inability to properly utilize certain food elements, like sugar and starches.

In a healthy person, the body automatically converts sugars into glucose, which is circulated in the blood. In turn, the body uses a hormone called insulin to convert the glucose into energy needed for immediate or future use.

In the presence of diabetes, the pancreas either produces too little insulin, or does not use the insulin properly. Thus, the glucose collects and overflows into the urine.

Diabetics fall into two categories, Type I and Type II. Type I diabetics are insulin-dependent, and usually begin to experience the disease in childhood. Type II diabetics, which account for approximately 90% of all diabetics, are usually non-insulin de-

pendent and develop the disease in adulthood. Type II diabetics produce some insulin naturally, and are able to control the disease by following a strict diet and exercising regularly.

### Diabetics and the eye

Both Type I and Type II diabetics can develop one complication of the disease: diabetic retinopathy. In patients who have had diabetes for many years, the risk of diabetic retinopathy greatly increases. The condition, which can lead to blindness, affects the eye's retina. The retina is the light-sensitive tissue that lines the eye's wall. If the retina is damaged, the eye is unable to transmit a clear image to the brain.

Diabetic retinopathy can manifest itself in two ways, *nonproliferative diabetic retinopathy* and *proliferative retinopathy*. Nonproliferative (or background) retinopathy can be a precursor to the more serious proliferative retinopathy. With background retinopathy, the blood vessels in the retina change in diameter—some shrink and others swell. This disturbs blood flow in the retina and may lead to hemorrhaging. This condition is usually not sight-threatening, but it can be a warning sign of further damage and should be monitored carefully. Fortunately, in about 80% of diabetic patients with background retinopathy, the condition does not worsen.

Proliferative retinopathy begins in the same way as background retinopathy, except the new blood vessels grow on the surface of the retina. These delicate new vessels can

break and leak into the vitreous, the clear fluid that fills the eye's inner back cavity. When the vitreous is clouded, light cannot pass through to the retina and therefore, images are either distorted or blocked.

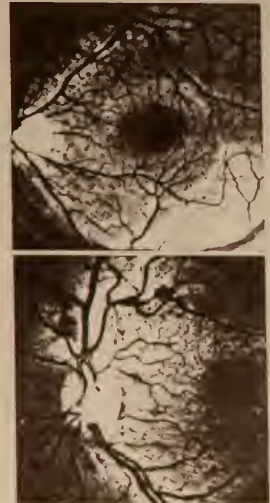
Retinal detachment may occur if the scar tissue about the leaking blood vessels growing into the vitreous cavity pulls away from the retina inward toward the vitreous. In addition, other eye problems like glaucoma can result from severe cases of proliferative diabetic retinopathy.

### Treating diabetic retinopathy

Diabetic retinopathy can be treated in several ways. Initially, the ophthalmologist will try to stop the leaking blood vessels from spreading by using laser surgery to photocoagulate the abnormal vessel growth. In this procedure, a very narrow laser beam is focused on the damaged areas. The heat from the laser light seals the vessel and helps adhere the retina to the back of the eye.

Laser surgery cannot be performed when the vitreous is very clouded with blood from a leaky vessel. In this case, a vitrectomy must be performed. During a vitrectomy, the cloudy diseased vitreous is removed and replaced with a clear artificial solution.

Vision is most often saved when a patient seeks immediate medical attention when warning signs develop. Such warning signs include sudden blurred or hazy vision, floaters, or other patterns in the visual field. All diabetic patients should visit an ophthalmologist regularly to monitor any



Top photograph shows a normal retina with healthy vasculature; in the fundus photograph of a diabetic patient's eye at bottom, hemorrhaging characteristic of diabetic retinopathy is evident.

changes in retinal blood vessels and receive treatment before sight is threatened.

(Note: Reprinted with permission from *Sundial*, the publication of the Eye Research Institute, Boston, Massachusetts.)

## Playing with your eyesight



Richard Gaffney serves as president of the National Federation of the Blind of Rhode Island.

(Note: This article appeared Spring, 1989 in the *View Finder*, the newsletter of the NFB of Rhode Island.)

A racquetball hit by a novice player can travel at 75 miles per hour. A professional player will hit the ball much harder at speeds in excess of 120 miles per hour. The average player falls somewhere in between. Regardless of the skill of the player, however, it is fair to say that if a rac-

quetball in play hits a player's eye, a serious injury will result. Most of the injuries associated with racquetball and other racket sports, such as squash and tennis, could be prevented if players wore protective eye gear. Excellent protection is provided by polycarbonate lenses in a hingeless sports frame. Ironically racket sport enthusiasts are more likely to invest in foot gear to protect the surface of the court than glasses that could save their eyesight.

More than two million eye injuries occur each year in this country, and forty thousand people are left with permanent visual impairment. A significant portion of these injuries are related to sports. In fact ophthalmologists have seen sport-related eye injuries soar with the national enthusiasm for physical fitness in general, and the popularity of racket sports in particular. Injuries that occur on the racquetball or squash court range from mild abrasions to damage that results in blindness. The outer-most surface of the eye, the cornea, can be scratched or there can be superficial bleeding. If the impact passes through the eye, the retina at the back of the eye can be torn or de-

tached. There can be bleeding inside the eye called hyphemia, and a strong blow to the eye can result in a blow-out fracture, a crack in the orbital floor that can trap an eye muscle. Many of these injuries require hospitalization and surgical repair. Yet most ophthalmologists insist that the vast majority of sport-related eye injuries are preventable. The sports and medical communities have already witnessed a dramatic reduction in eye and facial injuries occurring in ice hockey in recent years. In the late 1970's, Canadian and American ophthalmologists working with the Canadian Standards Association and the American Society of Testing and Materials developed performance standards for hockey face masks. They, then, convinced amateur hockey organizations to require all their players to wear the protective masks. This action has resulted in the elimination of an estimated 70 thousand eye injuries annually in Canada and the United States. Ophthalmologists are hoping to use a similar approach to reducing injuries in racket sports.

In 1980, committees from the CSA and the ASTM made up of athletes, physicians, lawyers, and manufacturers began working to develop perfor-

mance standards for eye protection during racket sports. Today, sports glasses that either carry the ASTM or the CSA label have met at least the minimum standards of performance, and the National Society to Prevent Blindness hopes to launch a certification program whereby manufacturers would submit new products to rigorous laboratory testing. In developing performance standards, researchers discovered some safety sport glasses cannot absorb the blow and protect the eye. Using a machine that serves racket balls directly at a manikin wearing sports glasses, they recorded the impact with slow-motion photography. They were able to demonstrate that all ordinary glasses failed completely, lensless guards, (frames with no glasses) failed because the ball flattens on impact and still penetrates the open space to hit the eye. Even polycarbonate lenses in hinged frames failed, because the hinges collapse on impact. The only sports glasses that would withstand repeated direct blows are hingeless, one-piece, molded polycarbonate glasses. They can be purchased in sporting good stores or optical shops and can be fitted with prescription lenses.

## Do you know a blind person?

### DO YOU KNOW A BLIND PERSON?

Do you know a blind person who needs help or information? Perhaps he or she is newly-blind and having trouble adjusting to the loss of sight. Maybe he or she does not know about all the services that are available, such as Social Security benefits, rehabilitation, or library services.

Whoever it is — a newly-blind man or woman, a senior citizen with failing eyesight, a blind child or infant — we (the National Federation of the Blind) would like to try to help.

About 500,000 people in the U.S. are blind, and each year 50,000 more will become blind. Studies have shown that only cancer is feared more than blindness. However, blindness does not need to be the tragedy which it is generally thought to be. With proper training, knowledge, and opportunities blind people can be productive, first-class citizens.

But first the blind individual must know *where* and *how* to get the training and services he or she needs. We — you and the National Federation of the Blind — can work together to find and provide necessary information to the blind in our communities.

Here are some of the services available to the blind in our communities. For more specific information about any of these services, please contact us.

### LIBRARY

Our state, like every state, has free library services for the legally blind. Books and magazines are available (on loan and free of charge) in braille, large print, and on cassette and records. Special cassette machines and record players to use in listening to the taped or recorded reading matter are also loaned without cost to blind library users. For details about where and how to apply for services in your area you may contact us or your local library.

### SOCIAL SECURITY BENEFITS

**Social Security Disability Insurance (SSDI):** Legally blind persons who have paid into the Social Security system may be eligible for SSDI under the special rules which apply to the blind. Legally blind senior citizens considering early retirement should first learn if they might qualify for more benefits under SSDI. **Supplemental Security Income (SSI):** Blind persons who have little or no regular income or savings may qualify for monthly payments under the SSI program. Again, there are special rules which apply only to the blind. Contact your local Social Security office for information and applications. We also encourage blind persons to contact us if they have any problems understanding the regulations, feel they have been unjustly denied benefits, or have other problems about which we may be able to provide information and guidance.

### REHABILITATION

Every state, including this one, has a

public rehabilitation or vocational rehabilitation agency which provides training, counseling, and employment placement services to the blind. Sometimes the service is provided directly, and sometimes it is contracted out to private rehabilitation facilities. Some funds through the rehabilitation agency are usually available to students for college education or other post-secondary training. Contact us for information about where to apply for services in your area.

### EMPLOYMENT

Blind persons may use the regular public and private employment agencies just like anyone else. However because of widespread misconceptions about the abilities of the blind, special employment services are extremely helpful. Job Opportunities for the Blind (JOB) is a special nationwide job listing and referral service sponsored by the National Federation of the Blind in partnership with the U.S. Department of Labor. JOB uses recorded materials, computers and volunteers to help blind people find competitive employment. There is no charge for this service. To apply for services write to: JOB, 1800 Johnson Street, Baltimore, MD 21230; or call (toll-free) (800) 638-7518.

### SCHOLARSHIPS

Blind students can take advantage of the same scholarship programs that are available to sighted students and should be encouraged to do so. However, there are also scholarships which are only available to blind students. The National Federation of the Blind, for example, awards over \$50,000 a year in scholarships to worthy blind students. Contact us for further details about these and other special scholarships for the blind.

### CIVIL RIGHTS

There are federal and state laws and regulations which protect the civil rights of the blind in such areas as employment, education, housing, insurance, public transportation, and public facilities. If you know of someone who thinks he or she has been unjustly treated or discriminated against just because of blindness, please contact us. We will try to help.

### PRODUCTS AND AIDS

Technology has made many useful products available to the blind. Some aids make daily life easier (example, the braille watch) while others have opened up more employment opportunities for the blind (example, talking computers). Contact us for more information about local and national resources regarding products for the blind.

### FREE READING MATTER MAIL PRIVILEGE

Recorded, braille, and large print reading matter (including library books and magazines) may be mailed to and from blind persons free of charge if "Free Matter for the Blind" is written or stamped on the envelope or package.

Braille watches, white canes, and other special appliances for the blind are included in this privilege. We will be happy to answer questions about the Free Reading Matter mail privilege.

### PUBLICATIONS

The *Braille Monitor* is a monthly magazine published by the National Federation of the Blind in braille, in print, in cassette, and on disc. The *Braille Monitor* keeps blind and interested sighted readers informed about issues, news, and events which have special significance to the blind. A free subscription is available by writing to: *Braille Monitor*, National Federation of the Blind, 1800 Johnson Street, Baltimore, MD 21230 (be sure to designate whether the *Monitor* is desired in print, braille, cassette or on disc.) For information about local newsletters of special interest to the blind contact us.

### EDUCATION OF BLIND CHILDREN

The passage of Public Law 94-142, the Education of All Handicapped Children Act, established certain rights

and protections for blind children and their parents. Blind children are now entitled to a free public education in the "least restrictive environment," and parents have the right to help plan their child's educational program. Contact us for more information about the education of blind children, parent organizations, newsletters, etc. Also, the National Federation of the Blind publishes a magazine for parents of blind children. This publication provides information and insights into all aspects of raising blind children from infancy to adulthood. A free subscription is available to parents or other interested persons by writing to: *Future Reflections*, National Federation of the Blind, Free Subscription Request, 1800 Johnson Street, Baltimore, MD 21230.

For information or assistance concerning any problem dealing with blindness contact your local chapter or state affiliate of the National Federation of the Blind or: National Federation of the Blind, 1800 Johnson Street, Baltimore, Maryland 21230, (301) 659-9314.

## Scholars are sometimes stumbling blocks

by C. Edwin Vaughan, Ph.D.



Dr. C. Edwin Vaughan is a professor of sociology at the University of Missouri-Columbia, and explains "how supposedly scientific and scholarly work can contribute to negative images about blindness."

(Note: This article appeared in the *Braille Monitor*, January, 1990, a national magazine published by the National Federation of the Blind.)

In his presidential address to the 49th Annual Convention of the National Federation of the Blind, July 1989, President Marc Maurer focused on the importance of language to the future of the blind. One of the major purposes of this largest consumer organization of blind persons is to change the meaning of blindness in this society. Images of blindness carried in our popular culture, earned

from advertising, humor, newspaper accounts, etc., provide the symbols which prospective employers, new friends, or strangers use to guide their behavior toward and treatment of blind people. Maurer noted, "If the language is positive, our prospects will be correspondingly bright. If the words used to describe the condition of the blind are dismal, we will find that our chances for equality are equally bleak."

In addition to folk or popular images of blindness existing in a society are the images or symbols created by the intellectuals or experts who make careers out of studying the peculiar conditions of the blind. Symbols, created by experts, frequently guide or at least are a part of public policy decisions about programs for the blind. Scientific protocol, the creation of complex new constructs to further explain the problems of blind people, and the frequent use of mathematical manipulation of newly created data all lend heightened status to the images of blindness created by professionals. This article will examine one such academic effort to explain the concept of self-esteem as it applies to the development of the self-concept of blind people—a book by Professor Dean Tuttle of the University of Northern Colorado entitled *Self-Esteem and Adjusting with Blindness*.

This book attempts to interpret self-esteem and the development of the self of blind persons using a wide array of concepts from the history of developmental psychology—ranging



from William James to contemporary writers. Tuttle also analyzes problems encountered in adjusting to the trauma of blindness. Using trauma either as a medical or psychological concept, the book describes a severe condition requiring significant intervention and often having lasting or permanent consequences.

At four different places in the book, Professor Tuttle briefly mentions that no special psychological principles are necessary to understand blind people. He notes that personality traits are as variable among the visually impaired as among the sighted (page 38). After his brief statements about no new psychological principles being required he goes on to write a 300-page book describing the special and peculiar problems blind people encounter as they experience self-development. To support or illustrate his arguments he uses quotations from more than fifty biographical and autobiographical works of blind individuals. A social scientist and educator in the field of blindness and a blind person as well would presumably present a fair balance and evenhanded approach as he described the peculiar and special situations of blind people. I will analyze several aspects of this book to illustrate how supposedly scientific and scholarly work can contribute unnecessarily to negative images about blindness. I will also show how the narrow focus displayed by this book can create an artificial and restricted picture of the world in which blind people are socialized.

He supports his argument by more than 250 quotations from the approximately 50 biographical and autobiographical books and articles cited in his text. These biographies and autobiographies usually describe the lives of fairly successful, and sometimes quite successful, blind people who have published their life stories for sale to the general public. Most of these life stories reflect successful adaptations to blindness. Whether one is illustrating the concept of self-esteem, relationships to significant others, or any other of the dozens of psychological concepts illustrated by Professor Tuttle, one could have selected, at least, one half of the illustrative citations which would have reflected positive or successful adaptations. When I first read Professor Tuttle's book, I was so struck by the pervasiveness of the negative language about blindness reflected in these biographical quotes that I re-read the text. Of his more than 250 quotations, less than 25 reflect positive images of blindness. Another 20 could be called neutral with respect to positive or negative images about blindness, while approximately 200 portray negative or dismal images about blind people. The following are three examples of quotations of the type I judge to be negative:

"I got along the pavement as best I could—and that is another frightening experience difficult to describe to anyone who has not been blind, be-

cause though you are surrounded by noise, you have no coherent mental picture of what is around you...I walked along in an enclosed gray little world a two-foot-square box of sounds around me..." (p.22); "No other day in my life stands out quite so clearly or so horribly as the day on which I got the verdict. His manner had kept full realization at bay until I was out in the street, then it struck with such force as to make it touch and go whether I did not go raving and screaming through the heart of Melbourne..." (p. 161); and "...A numbing terror fastened itself upon me when I was thus brought to realize that I was doomed to live the rest of my life in complete darkness. There was an agonizing feeling of helplessness and dismay at the thought of going through day after day without eyesight..." (p. 175).

I am not arguing that any scholar should necessarily present a positive interpretation about blindness, although it would be refreshing. I do suggest that the overwhelming preponderance of negative imagery reflects an unrecognized bias on the part of Professor Tuttle.

Despite his claim to a sociological perspective on self-development, Mr. Tuttle also completely ignores the organized blind as a source of influence on blind people being socialized in our society. In discussing significant others and reference groups, he advises that a blind person should be introduced to a teacher, school superintendent, counselor, friend, etc., and at one point he goes so far as to suggest meeting another blind person to learn some practical strategies. "However there is a time when the credibility of a message is much stronger coming from another blind person. The professional may want to arrange for a competent blind person to meet with the individual who is mourning. Areas of concern to be discussed with the recently blinded might include some 'tricks of the trade' or some quickly and easily learned adaptive techniques" (pp. 179-80). He does not suggest that it would be useful for a blind person to encounter groups of blind people who have positive images about blindness and who are committed to assisting themselves and others in the development of their human potentials.

Richard Scott and Father Carroll made this same mistake—that of ignoring the organized blind in their major works about blindness. However, I would have hoped that by 1984 a specialist in the field of blindness such as Mr. Tuttle would have been aware of the sociological importance for images about blindness and for the importance that the organized blind movement has been in the lives of a great many blind people. He seems almost to go out of his way to interpret the influence of high technology gadgetry as a potential influence on the lives of blind people, but he has not a single quote from Jacobus ten Broek and Kenneth Jernigan

or countless hundreds of other people who have published successful stores of adaptation in the *Braille Monitor* or other periodicals about blindness. In fact, after he departs from the mainstream of literature about self-development, most of his "scientific" material about blindness comes from a very narrow range of publication outlets—usually associated directly or indirectly with the American Foundation for the Blind.

How are we to explain the negative imagery that characterizes this text and the lack of attention to a major positive influence in the lives of many blind people as well as the general public? This book is just one more example of the self serving nature of much that passes for scientific research about blindness—it provides, to the true believer, much additional evidence about the special and peculiar problems that blind people encounter and which require the exclusive attention and assistance of especially trained professionals. Professionals are needed in the education of blind persons, just as they are for anyone else, but they, as a minimum requirement, must be knowledgeable about the organized blind. In his dozens of pages of advice to professionals he neglects to instruct them to learn about the positive philosophies, programs, and legislative successes of the several consumer organizations that should be a part of the professionals' understanding as he or she approaches rehabilitative relationships. Positive attitudes and images on the part of rehabilitation workers and educators can make a major contribution to the developing self-understanding of a blind person.

It is an example of professional ideology in the sense described by Karl Mannheim in his book *Ideology and Utopia*. "Thus, it is not men in general who think, or even isolated

individuals who do the thinking, but men in certain groups who have developed a particular style of thought in an endless series of responses to certain typical situations characterizing their common position." He analyzes the relationships between the intellectual point of view held and the social position occupied. Sociologically and historically he clarifies how the interests and purposes of certain social groups come to find expression in certain theories, doctrines, and intellectual movements. My interpretation of Mannheim's work would locate Professor Tuttle's effort as one more example of the creation of images about blindness that serve the self-interests of a social network of professionals and academicians who are making careers out of the study of and care of blind people.

It is also an example of the narrowness and departmentalization of the social sciences that leads scholars to focus narrowly on some aspects of self-development while being oblivious to major social movements that are changing the conditions in which blind people live.

It is a shame that the vast resources represented by the agencies and professionals are so irrelevant, sometimes even harmful, to the education and rehabilitation of many blind people. These vast resources will be better used when agencies and their employees drop defensive posturing and educate themselves in the positive views and aspirations reflected in the organized efforts of blind people themselves.

#### References:

Mannheim, Karl. *Ideology and Utopia*. Harcourt Brace, 1936.

Tuttle, Dean W. *Self-Esteem and Adjusting with Blindness*. Charles C. Thomas, Publisher, 1984.

## Ask Dr. James

by Ronald James, M.D.



Ronald James, M.D., long-term insulin-dependent diabetic, directs Midwest Diabetes Treatment and Education Center, Columbia, Mo. Dr. James is also the Medical Director of the Central Missouri Diabetic Children's Camp, Inc.

(Note: If you have any questions for Dr. James, please send them to the editor. The only questions Dr. James will be able to answer are the ones used in his column.)

**Does a glucose tolerance test indicate if one has diabetes? I thought only a fasting blood sugar test indicates this.**

Yes. A glucose tolerance test may be used to diagnose diabetes mellitus. However if one has a fasting blood glucose greater than or equal to 140 mg% on more than one occasion (so that one is sure it is correct) this is diagnostic of diabetes and one does not need to do a glucose tolerance test. One may have a fasting blood glucose less than 140 mg% and still have diabetes as diagnosed

(Continued on page 17)



## Life with a transplant

by John Newmann, PhD, MPH

### Rejection can mean many things

Most transplant recipients can have a rejection episode during the period of hospitalization after surgery, or during the first three months after returning home. This is normally treated very successfully with medication (more on this later). A small minority of patients experience acute rejection soon after surgery. Here the body's immune system (which provides protection from many infections and diseases) recognizes the new organ as an enemy and mobilizes all its resources to destroy the invader. If acute rejection cannot be reversed by medication, the patient may have to return to dialysis.

### What chronic rejection means

A minority may experience several rejection episodes, called chronic rejection, occurring over several months or even years. These episodes are also treated with medication. Over time, however, chronic rejection may signal the end of the transplant. As a result of repeated large doses of immunosuppressive drugs, there comes a point when the risk of permanently compromising or destroying the body's immune system is too high.

At that time, doctors and patients usually agree that life (even if on dial-

ysis) is more important to preserve than risking a slow, painful deterioration and possible death with a barely functioning kidney and inadequate immune system. There are those who have had two or three kidney transplants and are doing fine.

### Chances of rejection

What are the chances of rejection? Not very great, on average, for the first transplant. Nationally, of all the living related kidney transplants performed each year (about 2,500), 85-95% are functioning one year later. Of the estimated 7,500 cadaver kidney transplants performed each year, 70-80% on average are functioning one year after surgery. An additional 10-15% may stop functioning during the second and third year after the initial surgery.

Remember, these figures include all patients: the uncomplicated, healthy ones and those with other problems such as controlled hypertension, diabetes or mild heart disease, the ten-year-olds and the seventy-year-olds. That's right—kidney transplants aren't just for those 50 or under any more. A person's chronological age is not and should not be the deciding factor. The medical, physical and behavioral status of a potential candidate is evaluated. Nat-

urally, the better one's health, the better the chances for success.

### Symptoms of rejection

Rejection episodes in the first year, especially during the first few months after surgery, are not rare. They can be treated successfully if treated early. It is the patient's responsibility to attend the transplant clinic regularly, since blood tests may be the first signal of rejection. Any time a transplant recipient has a slight fever, feels fatigue, notices decreased urine output, increased weight gain or fluid retention, or tenderness around the transplanted kidney, the clinic should be called and visited immediately. Blood and urine tests can check whether signs of rejection are present. In some cases a kidney biopsy to rule out cyclosporine toxicity may be indicated.

### Treatment for rejection

The rejection is often treated by increasing immunosuppressive medication on an outpatient basis. These increased doses can cause temporary side effects. With prednisone, mood swings ranging from euphoria to depression and puffiness in the face may be experienced.

If the outpatient therapy is not soon effective, a hospital stay, rang-

ing from a few days to several weeks, is needed to carefully monitor the stronger medications that must be used. Their possible side effects, which can include fever, chills, general malaise, and discomfort are all well worth enduring to save the kidney.

The earlier the treatment is begun, the greater the chances for reversing the rejection and returning to normal. So the longer a transplant recipient ignores symptoms and waits to be tested for rejection, the greater the likelihood that the delay may result in the unnecessary loss of the kidney.

### Your role in preventing rejection

Major causes of rejection and return to dialysis are: not taking the medication as directed, and missing regularly scheduled transplant clinic visits for blood and urine testing. Taking your medications as prescribed and complying with routine clinic visits are the best ways to prevent losing that scarce but invaluable second chance at a normal life.

(Note: This article appeared in *Renalife*, published by the American Association of Kidney Patients; telephone: (813) 251-0725. Reprinted with permission.)

## Self management

(Continued from page 6)

monitoring is now the "in" thing to be sure that you do not have too much sugar in your bloodstream and/or do not have too much or not enough insulin in your system. It is reported that insulin gauges are more accurate than sight because when you push the plunger to the gauge tightly, you get the same amount every time. Sometimes with vision, people don't always get it on the same line. All syringes are mass produced and although there is quality control, there are some errors made in syringe markings, and they are not exactly in the same spot all the time. Then there is always the human element. People are often in a hurry, are sometimes careless, and are not always accurate in drawing up insulin.

### -- The possibility of inserting the needle into a blood vessel

Actually, your chances are minimal since injection sites are in fleshy areas. Insulin needles are short, and the worst you could do would be to hit a small capillary. This would result in a slight area effused with blood, which is called a hematoma. Again, it is unlikely that the needle will be inserted into a small blood vessel, and insulin entering the blood stream via a capillary would not be in a dangerous amount.

### -- How to get the air bubbles out of an insulin syringe before using it

As a blind diabetic, I have successfully drawn my own insulin without air bubbles for several years. I mix the insulin and when I draw from the first vial I draw a little insulin into the syringe, then inject all of it back into the vial. I can feel the air bubbles as the insulin returns to the vial and often, I can hear them. This procedure is repeated three or four times, followed by flicking the syringe several times near the hub with my fingernail to dispel any air present. I then slowly draw the full amount of insulin needed from the first vial. When I draw insulin from the second vial, I slowly draw the exact amount needed and then again flick the syringe a few times with my fingernail. I have had this checked several times and there have never been air bubbles present. Air that is in the syringe needle is injected out of the needle during the procedure used with the first vial of insulin.

### 6. What caused you to decide to resume drawing your own insulin?

I have always been independent and was determined to self-manage my diabetes. When I started losing my vision, I didn't know any blind diabetics so I could not ask questions. The medical professionals that I knew when I first became blind didn't think that a blind person could do very much by

him/herself, especially draw insulin and monitor blood glucose levels. And, I knew no rehabilitation staff members.

As soon as I found out that they were available, I decided to use insulin gauges. There were several gauges on the market. I experimented with one after another, but eventually I designed my own gauge and had it custom-made. Our Diabetics Division of the NFB has a resource list of aids and appliances, which lists different products available for the blind diabetic.

### 7. What other questions did you have as a blind person relating to the management of your diabetes?

I, as do many other blind diabetics that I have come in contact with, wondered how I would be able to draw my own insulin if I was blind. When I was in the hospital undergoing my last eye surgery, no doctor or nurse told me anything about there being gauges available so that I could draw my own insulin. I'm sure they didn't because they probably didn't know that such gauges existed, and perhaps assumed that a blind person would not be able to handle such a task, regardless. When I converse with health care professionals, they often fail to realize that blind diabetics can and do self-manage their own disease.

At that time, I did not realize that there were a couple of companies that

produced blood glucose monitoring instruments with voice outputs. I began to hear more and more about the importance of testing blood sugar levels, so I now test my blood sugar levels by using a glucometer with audio output.

Blood glucose testing is by far the best method to keep diabetes in check. Urine-sugar testing is important, but especially so when the diabetic is ill. Illness often causes a rise in blood sugar, which requires extra insulin.

Now, I have no problem managing my diabetes and keeping it in good control. I accomplish this through alternative techniques which many members of our organization, the National Federation of the Blind, use daily to live active, productive lives. There are many techniques that, with training and opportunity, can be utilized by the blind diabetic and enable him/her to be just as productive as they were when they were sighted.

This publication is being read by thousands of diabetics and health care professionals. Come to us and ask for assistance. We are ready, willing, and able to help. Let me close with the statement I often make. We in the NFB know that blindness is not synonymous with inability.

(Inclusion of materials in this publication is for information only and does not imply endorsement by the Diabetics Division of NFB.)



## Coping with crisis

by Denise J. Bradley



Denise J. Bradley, a long-term diabetic, tells about methods of coping with crisis situations.

*Denise J. Bradley has had Type 1 diabetes for 26 of her 37 years. She mismanaged her disease for almost 20 years and developed many complications, including retinopathy and neuropathy. Then, the threat of losing a foot to gangrene made her realize that she needed to change her attitude and take control of her diabetes. Today, she is happy and healthy; a change she attributes to following her management plan.*

*Denise has written a book about her life entitled, "What Does It Feel Like To Have Diabetes?" Her book gives the reader an intimate, factual look at her struggles with herself and her diabetes, and her eventual success in learning how to live with her disease. It is a warm and inspirational book for anyone with diabetes.*

*Denise has had many diabetes-related crisis times in her life. In the following article, she presents her recommendations on what you can do to cope with a crisis.*

You will have many crisis points in your life with diabetes. Some of them will be social, some will be physical and some will be psychological. But one thing is sure, you will not be able to avoid having some sort of crisis. However, if you are prepared for such a crisis, you will be able to handle it. My life with diabetes and diabetes crisis situations attests to this fact.

My keys to being prepared for a crisis are: **Attitude, Education, Self-Control and Action.** You can use these same keys to cope with the crisis events that are bound to happen to you.

**Attitude** is how you feel about yourself and your diabetes. Your attitude must be positive. You must see diabetes as something that can be controlled and yourself as someone able to control it. You must also see crisis situations as problems which can be solved.

**Education** means you must learn

everything you can about diabetes, diabetes management and the complications of diabetes. Education also means learning about yourself, how you respond physically and emotionally to both diabetes-related and non-diabetes-related events (for example, what your symptoms are when you have low or high blood glucose levels, how you react to stressful events). Finally, education also means thinking ahead and planning what you will do and say in specific crisis situations.

**Self-control** means remaining calm when a crisis (such as hypoglycemia) occurs. Remind yourself that you have gotten through crisis times before, that you know what needs to be done, and that you can do what is necessary to correct the situation.

**Action** means taking the steps needed to solve the problem. The action may be as simple as eating a piece of candy to overcome hypoglycemia, or it may be as complicated as having to arrange a stay in the hospital.

Here are some suggestions to help you handle different kinds of difficult moments.

### Telling Someone

One of the most common crisis situations is telling someone you have diabetes. The person may be a relative, a new friend, a prospective employer or even a stranger you need to ask for help because you are having an insulin reaction. Your attitude is important at such times. If you are afraid and uncertain, the person you are talking to may very well become afraid and uncertain. If you are calm and positive about the situation, your self-assurance will probably make the other person more comfortable. Then you can explain your situation.

Your explanation must fit the situation, and be as simple and straightforward as possible. For example, if you are having an attack of hypoglycemia and need to ask a stranger to get you a soft drink, you could say to him/her, "I'm a diabetic, and my blood sugar level is too low. When that happens, I get too weak and dizzy to walk. If you could bring me a soft drink or a packet of sugar, I'll be okay in a few minutes."

The stranger doesn't need a lengthy explanation of what diabetes is or why consuming some sugar will make you better. In fact, you could scare him/her away with too much talk.

On the other hand, when telling a new friend about your diabetes, you will want to talk about how diet, exercise, medication and self monitoring are parts of a plan you need to follow to stay healthy. You will want your friend to know the symptoms of high and low blood sugar levels, and what to do in case of emergencies.

### Physical Problem

The first step in coping with any physical crisis is to stay calm. The second step is to call your doctor immediately and make an appointment for the earliest possible time.

For example, if you wake up one morning and see a puncture wound on your foot, but can't feel any pain, don't panic and don't ignore the wound. Call your doctor or podiatrist immediately and insist on an appointment.

When you see the doctor, don't be afraid to ask questions about the problem and the possible treatments. If you don't understand an answer, ask the doctor to be less technical.

Don't leave the office until you know exactly what you have to do and when you should do it, and make sure you know what danger signs you should watch for.

If necessary, write down the things you need to do and the danger signals, or ask the doctor or nurse to do this for you. Review your written instructions every day until the problem is cured.

If you forget something or are uncertain, call the doctor's office for a reminder. If the problem doesn't seem to be getting any better, make another appointment so that changes in the treatment can be made.

A physical crisis can affect your entire management plan, so you should ask about diet, medication, monitoring and exercise. For example, a foot ulcer may require that you stay off your feet for several days or weeks. This may change your exercise program, which may in turn require changes in diet and medication dosage.

No matter what your physical crisis may be, you are the one who has to take charge of correcting it.

You will be more likely to succeed if you approach the crisis calmly, and with a positive attitude, knowledge and a willingness to do the necessary things.

### Vision Problem

Some day, you may have to face the crisis of suddenly having floaters appear in your vision, or having your eyesight turn blurry, such as may occur with diabetic retinopathy.

You should look at these early stages of eye problems as warning signs and contact your eye doctor immediately. Many diabetic eye problems can be corrected or greatly improved, and your best chance for stopping, slowing or even reversing a problem is to have it diagnosed and treated promptly.

But, if your vision gets worse despite treatment and your good control, there are ways to cope with the problems that loss of sight can cause. Check with your eye doctor and hospital to find out if there is a clinic or other institution that special-

izes in treating and educating those who are losing their vision. Many states have agencies or commissions for persons with serious eye problems, so check with your state and local government offices.

Many health care facilities have Mobility and Orientation Programs specially designed to teach persons with low or failing vision. These programs can teach you how to use other senses (touch, hearing) to replace your eyesight, and how to make the best use of what vision you have. This kind of training can help you be and feel more independent at home, at work, on the street and in social settings.

If you like to read, but find it too difficult, there is the Talking Books Program. This is a nationwide, free library service for visually impaired persons, and it offers books and magazines in Braille and on recordings. When you join, you become a member for life and can borrow materials whenever you want.

Also, there are many products available to help you deal with your reduced vision. Magnifying lamps, syringes that allow you to measure a dose of insulin by touch and playing cards that are marked with raised bumps are just three readily available items. (Editor's Note: The NFB Diabetes Division has a comprehensive list of aids and appliances for blind diabetics. There is no reason for diabetics to cease being independent because of blindness.)

### Emotional Problem

Some days, you just feel overwhelmed by your diabetes. You don't want to say no to a piece of cake, or take another blood glucose measurement, or hear your spouse ask if you feel okay.

Your attitude is especially important at these moments of emotional crisis. You have to remember that you are a human being, and that it is normal to feel down about your diabetes once in a while. Remind yourself that you have had bad days before and gotten through them. Keep in mind that an occasional step out of your management routine probably won't hurt you.

Also, keep a sense of humor about yourself and your diabetes. You will feel better emotionally and physically if you occasionally laugh at yourself and don't take your diabetes so seriously every moment. As long as you are trying your best to keep yourself healthy, you are doing the most you can do.



## Exercise & complications

Some complications of diabetes may restrict you from some forms of physical activity, but there are safe alternatives.

by John Ivy, Ph.D.

It's no secret that exercise is good for you. Exercise helps control your appetite and body weight, improves overall fitness, helps reduce stress, and can boost your self-image.

If you have type I (insulin-dependent) diabetes, a well-planned exercise program can help you control your blood-sugar level and reduce your daily insulin requirements. If you have type II (non-insulin-dependent) diabetes, following a regular exercise program and a personalized meal plan can often help reverse insulin resistance and even lead to your physician taking you off oral diabetes medications.

So, the benefits of exercise are numerous. However, if you suffer from one or more of the complications that sometimes accompany diabetes, all exercises are not created equal. In fact, depending on the complication, a particular exercise program could be harmful. But that doesn't mean you have to quit exercising completely. There are numerous alternatives.

If you haven't discussed your exercise program with your doctor, do it soon. That is the first step to take before starting any exercise program. In the meantime, here are some of the common complications of diabetes and some safety guidelines to think about and discuss with your doctor as you plan an exercise program.

### Hypoglycemia

Hypoglycemia (low blood sugar or an insulin reaction) is one of the most common complications of diabetes. For people with type I (insulin-dependent) diabetes, hypoglycemia can be a serious problem. Left untreated, it can be life threatening.

Hypoglycemia normally happens when too much insulin is injected, and not enough food is eaten. Because exercise normally lowers blood sugar, it can cause hypoglycemia. Exercise lowers blood glucose in two ways. First, by increasing the effectiveness of insulin. And second, by increasing the rate that the muscle takes up the glucose to use as energy.

Because exercise can affect blood-glucose levels, you need to talk with your doctor about adjusting your diabetes regimen to accommodate the exercise you plan to do.

For your part, you'll want to always check your blood sugar before exercising. If your blood sugar is already low, you may need to eat something and postpone exercise until your blood glucose is closer to normal. One way to avoid an insulin reaction is to eat a meal 30 to 60 minutes before exercising.

It is just as important to test your blood sugar after exercise, too. This is because exercise can affect blood glucose for several hours after your workout. As you begin to get in

shape and the intensity and duration of your workouts increase, your daily insulin requirement may decrease. This results from your body running more efficiently. However, to prevent hypoglycemia you'll need to adjust your insulin dosage. You'll need your doctor's guidance to make this kind of adjustment. NEVER change your insulin dosage without first checking with your doctor.

It is also important to have some form of sugar (such as orange juice, hard candy, or commercially-prepared glucose) on hand just in case an insulin reaction occurs. If you feel an insulin reaction coming on, stop and treat it immediately. Don't wait to finish your exercise routine.

### Hyperglycemia

Normally, exercise lowers blood sugar. But occasionally it can also send blood glucose soaring. This can happen when blood sugar is already higher than normal (hyperglycemia). Hyperglycemia can lead to ketoacidosis (diabetic coma) and should be taken seriously.

A good rule of thumb: If your blood glucose is above 250 mg/dl, test your urine for ketones. If ketones are present, delay your exercise routine until your diabetes is in better control.

### Neuropathy

Depending on the severity and type, neuropathy (nerve damage) can put a damper on some exercise programs. Basically, for exercise purposes, neuropathy is divided into two key types: autonomic and somatic. Autonomic neuropathy affects the nervous system that controls the involuntary functions of the body such as heart rate, sweating, digestion, and breathing. Somatic neuropathy affects the nervous system that controls voluntary movements, such as walking or moving your fingers. Here are how these two types can affect exercise:

**Autonomic.** People with autonomic neuropathy can have difficulty maintaining the proper heart rate and blood pressure needed to provide enough blood to the working muscles, and therefore may get tired easily. Inadequate blood flow and low blood pressure (also a problem) can result in light-headedness and fainting during exercise. Two other risks involved with autonomic neuropathy are hyperthermia (overheating) and hypoglycemia.

If you have autonomic neuropathy, intensive exercises, such as weight lifting, running, and cross-country skiing may be out for you. Instead, you may be able to participate in moderate exercises such as walking, cycling, or low-impact aerobic dance. You should also avoid exercising in temperature extremes, especially warm weather.

**Somatic.** Somatic neuropathy can cause problems such as extreme pain or weakness in the legs. Loss of feeling in the lower legs and feet are also common symptoms of somatic neuropathy.

As you can imagine, this type of neuropathy can make it difficult, if not impossible to participate in exercises that primarily involve the lower body, such as running or aerobic dance. However, exercises that focus on the upper body, such as swimming or rowing, may be good alternatives.

If you're not a swimmer, you might try running in waist-deep water. The buoyancy of the water reduces the load on the legs and still provides enough resistance to give you a good workout. The water also provides pressure on the legs that can help return blood to the heart and prevent it from pooling in your legs.

Another alternative is bicycling. Even though riding a bicycle primarily uses your legs, it still might be a good option because your weight is supported by the bike rather than your legs. This reduces stress on the feet, legs, and joints while at the same time allowing you to improve the strength and endurance of your legs, heart, and lungs.

If you are considering exercises that place the feet at increased risk, such as running or walking, there are a few precautions you need to take:

- Wear proper footwear. Don't wear tennis shoes to jog in, or running shoes to play tennis. And don't try to save money by buying a shoe that won't give you adequate support. In the long run, it may cost you more. And don't wear old, worn out shoes. Invest in new shoes as your doctor, podiatrist, or sports physiologist advises.
- Inspect feet before and after your workouts. If you notice any redness or blisters on your feet, treat the problem immediately.
- Keep feet clean and toenails trimmed. If you can't trim your own toenails, ask someone else to do it

for you.

- Wear soft socks made of absorbent material. If you have a persistent foot problem, such as a sore that won't heal or persistent swelling, see a podiatrist.

### Nephropathy

Little is known about the effects exercise has on nephropathy (kidney disease). We do know that exercise alters blood flow to the kidneys by increasing your body's overall blood pressure. High blood pressure can aggravate kidney disease. Therefore, exercise may worsen kidney disease.

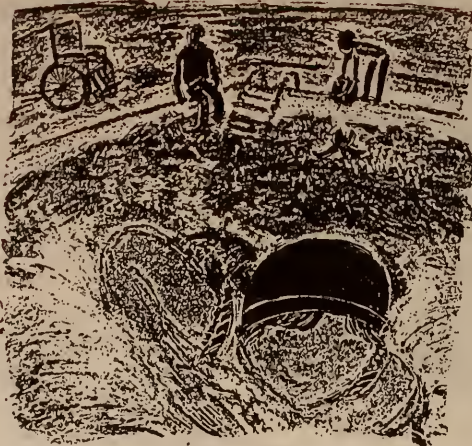
Exercises that increase blood pressure include weight lifting, isometric exercises (pushing against an immovable resistance, such as a wall), strenuous calisthenics, high-intensity exercises (such as sprinting), and exercises that focus on small muscle mass (such as rowing—where the arms are used, or jumping rope—where the calf muscles do most of the work).

If you are at risk for nephropathy, safe alternatives may be aerobic exercises like cycling, jogging, swimming, and brisk walking. However, discuss with your doctor what exercises, if any, would be appropriate for you before beginning any exercise program.

As with any exercise, but especially true if you are at risk for nephropathy, avoid dehydration by drinking liquid (water is a good choice) frequently and not exercising in warm, humid environments.

### Atherosclerosis

Large blood vessel diseases, such as coronary artery disease, are more common in people with diabetes and tend to occur at an earlier age than in the general population. If you are over 40 years of age or have had diabetes for a number of years, you should have a medical checkup and discuss starting an exercise program with your doctor. If you have coronary artery disease or atherosclerosis





avoid strenuous, high-resistance, isometric types of exercises. Instead, moderate levels of aerobic exercise (walking, low-impact aerobics, leisurely bicycling) are safer.

As is true with anyone, it is very important that you spend 5 to 10 minutes warming up before and cooling down after each workout.

### Hypertension

Hypertension or high blood pressure is a common complication of diabetes. This complication increases your risk for nephropathy, atherosclerosis, and other vascular diseases. However, there is some evidence that exercise can reduce the risk of hypertension. It has been found that people who have type II (non-insulin-dependent) diabetes and hypertension can substantially lower blood pressure by exercising and eating a proper diet.

If you have hypertension, take precautions when you exercise. First, get your blood pressure under control. This may mean taking antihypertensive medications and/or altering your diet. You will need to work with your doctor to gain control of this problem. Why? Because exercising with an elevated blood pressure can cause undue stress on the heart and blood vessels, which could result in a stroke or heart attack.

Once you have your blood pressure under control, work with your doctor to design an exercise program that will not cause large elevations in blood pressure. Your best bets are rhythmic exercises that use the large muscle groups, such as brisk walking, jogging, and cycling. Swimming is also good if done in moderation until you develop a proficient swimming stroke. Swimming can be strenuous if you are out of shape.

One final note: Avoid carrying any weights during exercise. These weights increase the tension of small muscle groups which also raises blood pressure.

### Retinopathy

Retinopathy is a common eye problem for people with diabetes. If left untreated, retinopathy can lead to blindness. This disease happens when fluid leaks from the blood vessels and builds up in the retina causing tiny fat deposits to form. This could eventually damage the retina, thus distorting vision.

If you have retinopathy, avoid high-intensity exercises and lifting weights since these may cause retinal hemorrhage and possibly accelerate the development of retinopathy. Also, avoid exercises that raise blood pressure as well as those that involve a lot of bouncing, like aerobics or running. Bicycling or low-impact aerobics are two possible alternatives. However, before you begin any exercise program check with an eye doctor first.

Hopefully, this information hasn't scared you away from exercise. The less motivated may be delighted to discover more excuses not to exercise. But don't be misled—that is not what this article has been about. True, some people have conditions that make it nearly impossible to participate in an exercise program. But for most, there are safe alternatives.

So don't kid yourself—you need to exercise, if only at low to moderate levels. Exercise is important to maintaining good health. In fact, exercise, combined with a proper diabetes regimen, may help you avoid other complications of diabetes. That alone is reason enough to start lacing up those sneakers.

*John Ivy is Director of the Exercise Science Laboratories and Judy Spence Frank Endowed Professor at the Department of Kinesiology, University of Texas, Austin, TX.*

(Note: Reprinted with permission from *Diabetes Forecast*, February, 1990. Copyright ©1989, American Diabetes Association, Inc.)

## Diabetes mellitus can be managed

Diabetes Mellitus is not a simple disorder, but for almost all diabetics it is a disorder that can be managed. It occurs in the United States at a rate of 2-4 percent of the population. Statistics indicate 10 percent of acute care hospital days occur because of diabetes. Years ago a diagnosis of diabetes was a death sentence. Usually within a year the victim died from starvation. Thanks to Banting the Best in 1921, the hormone insulin was discovered and successfully administered to subjects with dramatic results. This discovery was the miracle of life to diabetics. Another great discovery became widely available in the early 1950s. The oral hypoglycemic agents, which fall under the classification of sulfonylureas, were found to lower blood sugar. These drugs have proved to be extremely successful in the management of Type II Diabetes. Both insulin and oral hypoglycemic agents should be used in conjunction with proper dietary management. The type of treatment depends upon the type of diabetes. Type I or Insulin Dependent Diabetes (IDDM) accounts for about 10-15 percent of diabetics. Type II or Non-insulin Dependent Diabetes Mellitus (NIDDM) accounts for at least 80 percent. Gestational diabetes or diabetes occurring during pregnancy occurs in about 2 percent of pregnancies and disappears after the delivery of the baby in at least 96 percent.

There is a hereditary tendency of approximately 5 percent among first degree relatives for Type I IDDM (Insulin Dependent) and approximately 15 percent among first degree relatives for Type II NIDDM (Non-insulin dependent) diabetics. Type I Diabetes has a 50 percent concordance rate in identical twins and there is a

much greater frequency of HLA phenotype DR3 and DR4 than found in the general population.

Though heredity plays an important part, so does environment. The major theory for the cause of IDDM is a virus which attacks the insulin producing beta cells in the islets of the pancreas and causes destruction of the beta cells. Some have anti-islet cell antibodies which may be present years before actual diagnosis of diabetes. As high as 90 percent of Type I diabetics have islet cell antibodies present upon diagnosis. Type I diabetes usually occurs before age 30. The person is usually thin and exhibits the classic symptoms of increased thirst, increased hunger and increased urination. Management requires insulin injections and diet therapy. Type II Diabetes usually occurs later in life and 60-90 percent are overweight. These diabetics are not as insulin deficient as the Type I Diabetic. Their diabetes may be managed by diet and exercise alone or with the addition of oral hypoglycemic agents or insulin injections.

Proper management of diabetes is important to help maintain daily good health, but also to help prevent the long term complications of diabetes which include retinopathy, nephropathy (kidney damage), neuropathy (nerve damage), and cardiovascular complications. Maintaining a normal blood glucose range is the most important preventative measure.

The key is education and the prime factor is learning how to control diabetes and not let it control you.

(Note: This article appeared November 19, 1989 in the *Daily Statesman*, Dexter, MO.)

## Ask Dr. James

(Continued from page 13)

by the glucose tolerance test. Also a random blood glucose level of greater than 200 mg% in a person with the classical symptoms of diabetes, i.e. increased thirst, increased urination, increased appetite, and glucose in the urine, is diagnostic and a glucose tolerance test does not need to be performed.

*I understand that U-500 insulin is very concentrated and is used by people requiring high levels of insulin. Can this be injected once a day?*

U-500 regular insulin is available from the Eli Lilly Company and can be used by people requiring very high doses of insulin. Since the effect of regular insulin lasts for approximately six hours or so, it is necessary to inject it more than once daily when it is the only insulin being used. Therefore most individuals using U-

500 insulin will require two to four injections daily.

*Why and how does caffeine alter blood sugar?*

For the most part I feel that caffeinated beverages are not a problem for the diabetic. It is well known that caffeine can stimulate the beta cells in the pancreas to produce insulin. For the Type I diabetic who is insulin dependent and therefore produces little or no insulin, caffeine would not be expected to affect the insulin levels or the blood glucose. On the other hand in the Type II diabetic who produces insulin it is conceivable that in some cases it would stimulate insulin production and thus lower the blood glucose, possibly causing hypoglycemia. Nevertheless, it is my feeling that it is generally not a problem for the Type II diabetic. One must remember that caffeine comes in beverages such as coffee. If one adds caloric sweeteners such as sugar or cream-type products, this could very well affect the diabetes.





## Diabetes, exercise, and blindness

(Continued from page 1)

cane, and the confidence to use these skills aggressively in a variety of circumstances. This lack of confidence is not surprising. It stems not only from a lack of experience in using the skills that blind people need, but, more importantly, it comes from the widely held misconceptions about blindness. Included in these misconceptions are the notions that blind people are necessarily less active and less able to engage in physical activity than the sighted.

Training by the appropriate public or private agencies can help a newly blinded person obtain the necessary skills. However, the key to learning that these techniques can be truly effective in everyday life is found through association with active blind people. Viewing successful and active blind people as role models and engaging with them in challenging activities does a very great deal to motivate the newly blinded individual and to teach him or her that their life continues to have strong possibilities.

This motivation was given to me by members of the National Federation of the Blind. They taught me the necessary skills and they motivated me to use them to a far greater extent than I had thought possible.

While external motivation from the blind community was important, it was not the only source of my motivation for physical exercise. Previously I had always led an active life and had grown up knowing that exer-

cise was good for my cardiovascular health. I also knew that the diabetes worked against me. I needed all the advantages I could get in order to maintain my general health.

An active lifestyle filled with physical work and recreation would help me live a long life and it would also produce much enjoyment of that life.

The medical evidence on the benefits of exercise is well documented. I know exercise has been advantageous for me and I believe that it would be advantageous for other diabetics regardless of their age or present physical condition.

Perhaps this is a good opportunity for me to voice some concerns regarding the advice that is given by the medical community on exercise for diabetics. Diabetics experiencing retinopathy as a complication of their diabetes are often advised to limit their exercise to those types of exercise that involve only the large muscles of the body and do not cause sudden increase in blood pressure. It is felt that the sudden increase in blood pressure may cause additional hemorrhaging on the retina and thereby aggravate the loss of eyesight. Exercise such as weight lifting is therefore discouraged.

It seems to me that one must seek a proper balance between concerns for losing eyesight and concerns for your general health. While large muscle cardiovascular exercise such as bicycling is preferred under any circumstances for its cardiovascular

benefits, that need not be the only form of exercise in which the diabetic engages.

As previously discussed, oncoming blindness can do much to demotivate a diabetic to exercise. Overcoming this tendency should be the first concern of the diabetic and of the medical community. Moderate weight training may be at times the only readily available form of exercise to the diabetic suffering retinopathy. The diabetic should, if possible, prepare for weight training by engaging in a cardiovascular warm-up. The risk of additional retinal hemorrhaging will therefore be minimized.

In the final analysis, any exercise is better than no exercise, even if the form of exercise you choose may place you at risk of additional retinal

hemorrhaging. If you do lose additional eyesight, you have the assurance of many people like myself that there are effective alternative techniques available to you.

Early in my blindness, I chose not to worry excessively about losing additional eyesight. The probability was that I was going to lose it anyway. In the meantime, I needed to continue to do all that I could to maintain my general health. Any reduction in my health resulting from lack of exercise was too high a price to pay for saving a little marginal eyesight.

I encourage diabetics, particularly those in the early stages of retinopathy, to consider my comments carefully. Life is good and an active life is even better. So get out, work out, and have some fun!



Ann Terry is a registered dietitian. She works at the State Hospital in Fulton, Missouri and at the Veteran's Administration Hospital of Columbia, Missouri. She graciously calculates the diabetic exchanges and food values for our recipes.

Send your great ideas to the editor. He is the official taste tester and needs recipes to test his taster.

### Vegetable Salad Relish

Submitted by Irma Becker

(Note: Irma Becker is a friend of Karen Mayry, our Diabetics Division President, and sent this recipe to her.)

- 1 can French style green beans
  - 1 large onion, diced
  - 1 green pepper, diced
  - 1 can bean sprouts, drained and rinsed under cold water
  - 1 (4-oz.) can mushroom pieces
  - 1 can white peg corn
  - 1 can chopped pimento
  - 1 cup sliced celery
  - 1 small head cauliflower, cut up
  - 3 shredded carrots
  - 1 cup water chestnuts, cut up
- Drain all canned vegetables very well. Bring to a boil the dressing ingredients:
- 1-1/2 cup vinegar
  - 1 cup vegetable oil
  - 1-1/2 Tbs. salt
  - pepper to taste
  - sugar substitute to equal 1 1/2 cups

Pour dressing over vegetables. Store in refrigerator in glass jars.

Yield: approx. 20 cups; Calories: 140; Diabetic Exchanges: 2 veg. and 2 fats.

### Green Pepper Steak

Submitted by Frances Allen  
From Columbia, MO

- 1 lb. beef, chuck or round, fat trimmed
- 1/4 cup soy sauce
- 1 clove garlic
- 1 1/2 tsp. grated fresh ginger or 1/2 tsp. ground
- 1/4 cup salad oil
- 1 cup green onion, thinly sliced
- 1 cup red or green peppers cut into 1-inch squares
- 2 stalks celery, thinly sliced
- 1 Tbs. cornstarch
- 1 cup water
- 2 tomatoes, cut into wedges

Cut the meat across grain into thin strips, 1/8-inch thick. Combine soy sauce, garlic, ginger. Add beef. Toss and set aside while preparing vegetables. Heat oil in large frying pan or wok. Add beef and toss over high heat until browned. Taste meat. If it is not tender, cover and simmer for 30 to 40 minutes over low heat. Turn heat up and add vegetables. Toss until vegetables are tender and crisp, about 10 minutes. Mix cornstarch with water. Add to pan; stir, and cook until thickened. Add tomatoes and heat through.

Yield: 4 servings; Calories: 380; Diabetic Exchanges: 3 meat, 2 veg., 2 fat.

### Low Calorie Cole Slaw

Submitted by Frances Allen  
From Columbia, MO

- 1 lb. cabbage, shredded
  - 3/4 cup low calorie Italian dressing
  - 1 tsp. celery seed
  - 1 1/2 Tbs. diced onions
  - 1/2 cup shredded carrots
- Place ingredients in bowl, mix well. Chill for one hour before serving.
- Yield: 8 servings; Calories: 25; Diabetic Exchanges: 1 veg.

## 65 and better health facts

### Diabetes

by Ken Michel, P.D.

The American Diabetes Association has come up with a new word to show the link between obesity and diabetes mellitus: *diabesity*. Obesity refers to excess body fat. One standard of obesity is when a person is more than 20 percent overweight. A standard for ideal weight is for a woman to add five pounds for every inch over five feet tall. This is then added to 100 pounds for first 5 feet. Therefore, a woman who is five foot five inches should have a weight of 100 pounds plus 25 for a total of 125 pounds. Obesity is 20 percent over this amount or anything over 150 pounds. A man's weight should be 6 pounds for every inch over five foot, plus 106 pounds for first five feet. Therefore, a man five foot eight inches tall should be 154 pounds, but if over 185 pounds is obese.

Upper body weight and lower body weight are also considered when thinking of the prevalence of diabetes. A person overweight in the upper body, or an apple shape, is more likely to have diabetes than a lower body or pear shaped obese person. A person who is obese runs twice the risk compared to a non-

obese person to have NIDDM (non-insulin dependent diabetes). In fact, obese persons who are not insulin dependent comprise about 80 percent of all diabetics. It has been said that diabetics is the penalty for overeating. This is true because a loss of weight can help control diabetes. Weight loss is the most important thing in managing NIDDM. However, exercise is also very important. Diet and exercise combined can often control diabetes. Diabetes is rare in those who expend a lot of energy in their daily lives.

By these facts, it can be shown our diets play an important role in diabetes. Only eight percent of diabetes is due to heredity, the remaining 92 percent is due to our diet and lack of exercise. Be careful about so-called dietetic candy. These frequently have as many calories as regular products.

So, as I have mentioned in other talks, diet and exercise are important for good health.

(Note: This article appeared February 26, 1990 in *Daily American Republic*, Poplar Bluff, MO.)



## What you always wanted to know but didn't know where to ask

(Resource list)



(Inclusion of materials in this publication is for information only and does not imply endorsement by the Diabetes Division of the NFB.)

### Equipment

**Diasean-SVM Blood Glucose Meter with Voice Output:** Blood can be smeared onto the test-strip pad, a hanging drop is not required. The manufacturer offers a \$125 rebate. Suggested retail price is \$635. With rebate (including cassette instructions) it is \$510. A sample cassette is offered free upon request. Contact: Home Diagnostics, Inc., 6 Industrial Way West, Eatontown, NJ 07724; telephone toll-free: 1-800-342-7226; in NJ call: (201) 542-7788.

**Novolin Pen:** This device looks like a fountain pen and can be carried in either shirt pocket or purse. When drawing insulin, an audible click will be heard for each two units drawn.

A multidose PenFill cartridge slips into the pen for several days' dosage of insulin. Three different cartridges of human insulin are available: the Novolin R PenFill contains regular human insulin injections (semi-synthetic); the Novolin N PenFill contains NPH human insulin isophane suspension injections (semi-synthetic); and the Novolin 70/30 PenFill contains a mixture of 70% NPH human insulin isophane suspension and 30% regular human insulin injections (semi-synthetic). All PenFill cartridges are sold in lots of five. The suggested retail price for the Novolin Pen is \$39.95. For information contact: Novo-Nordisk Pharmaceuticals; telephone toll-free: 1-800-727-6500.

**Aicom Accent Text-To-Speech Synthesizer:** Converts text on your computer screen to speech, with vocabulary of over 20,000 words. Five models: full-length (\$745) or half-length (\$395) plug-in cards for IBM-PC compatibles; cards for Toshiba laptop models T1200, T1600 (\$625) or T1000XE; stand alone unit with RS-232C link to any computer (\$940); MC cards for microchannel PS-2 (\$895). Supported by all major screen reader programs. Contact: Aicom Corporation, 2375 Zanker Road, Suite 205, San Jose, CA 95131; telephone: (408) 922-0855.

**Xerox/Kurzweil Personal Reader:** This instrument reads single sheets or bound documents by turning the printed word into DECTalk synthetic speech. Includes a portable optical scanner that interfaces with other computer hardware, plus it is "compatible with...Braille conversion software packages." Contact: Xerox/Kurzweil Personal Reader Department, 185 Albany Street, Cambridge, MA 02139; telephone toll-free: 1-

800-343-3111, or in Massachusetts: (617) 864-4186.

**Talking Blood Pressure/Pulse Monitor:** This instrument can verbally or visually give both numbers of your blood pressure and your pulse rate. The instrument has a control that can be set to tell you, step-by-step, how to take your blood pressure or to give you only the end results. It can also be set for no verbal response at all.

This instrument is also equipped with blood pressure cuff and LDC board on which your blood pressure and pulse rate are visually displayed. It will operate on batteries (included) or on an A/C adapter (not included). The cost for NFB members is \$128.00 and for non-members \$153.00.

To order, contact: National Federation of the Blind, Materials Center, 1800 Johnson Street, Baltimore, MD 21230; telephone: (301) 659-9314.

★★★★★★★★★★★★★★★★

Hear ye! Hear ye! A Special Offer!

*Continental Pharmacy has over 27,000 products, including a wide range of pharmaceutical items. Large print or Braille labels are available at no charge. Advanced payments aren't required; this pharmacy will prepare and file Medicare and private insurance claim forms and will wait for insurance payment. No charge for home deliveries.*

### SPECIAL OFFER FOR VOICE OF THE DIABETIC READERS

**Diasean S Glucose Monitor:** "Most accurate meter on the market," with a large LCD readout. Normal retail cost is \$154.00. Your cost is \$0.00. Limit one meter per person. Minimum of 2 vials of diasean strips must be purchased with special offer.

**Diasean SVM Glucose Monitor with Voice Output:** "Most accurate meter on the market." Normal retail cost with manufacturer's rebate is \$510. NOW - Continental Pharmacy offers this meter for \$430. There is also a manufacturer's rebate of \$125 which brings the total cost to \$305.

*Our Voice of the Diabetic editor, Ed Bryant, has checked the cost of diasean test strips from several pharmacies around the country, and finds that the Continental Pharmacy cost is lower than other vendors.*

*Ed Bryant says that this is the best special offer he has ever heard of. He asks that interested consumers compare prices - check other vendor's prices for the Diasean S Meter and the Diasean SVM Meter with Voice Output. Ed uses the Diasean SVM Meter with Voice Output, and says it is really great.*

Contact: Continental Pharmacy, Inc., 3355 Richmond Rd., Beachwood, OH 44122; telephone toll-free: 1-800-677-4323.

### Products for the blind

There are numerous vendors who stock products for the blind. All consumers should shop around for the best prices. Also, sometimes the product lines carried by vendors can be purchased more economically at local discount outlets. Your editor has reviewed the sales catalogs of the following vendors and feels that many items are carried that may be of interest to blind consumers.

**Aids Unlimited, Inc.,** 1101 N. Calvert, Suite 502, Baltimore, MD 21202; telephone: (301) 659-0232. Catalog available in print or on cassette. Tape catalog issued biannually for a lifetime charge of \$1.35.

**Independent Living Aids, Inc.,** 27 E. Mall, Plainville, NJ 11803; telephone: 1-800-537-2118. Catalog available in print or on cassette. There is no charge.

**LS&S Group, P.O. Box 673, Northbrook, IL 60065;** telephone: 1-800-468-4789. Catalog available in print or on cassette. The tape costs \$3.00 which can be put towards the first purchase.

**Maxi Aids, 86-30 102nd St., Richmond Hill, NY 11418;** telephone: 1-800-522-6294. Catalog available in print or on cassette. The tape costs \$2.50 which can be put towards a purchase of \$25 or more.

**Science Products for the Blind, P.O. Box 888, Southeastern, PA 19399;** telephone: 1-800-888-7400. Catalog is available in print.

### Literature

The following appeared in Volume 11, Number 1, Spring 1990 *Diabetes Dateline*, published by the National Diabetes Information Clearinghouse.

**Joslin Diabetes Manual:** Provides up-to-date information based on current research findings about the day-to-day management of the major forms of diabetes. This edition updates the previous Joslin manual, published in 1978, and the information it reflects advances made in

diabetes management in the past 10 years.

The book costs \$10.95 in paperback, with discounts available for multiple purchases. It can be ordered from the publisher Lea and Febiger, 600 South Washington Square, Philadelphia, Pennsylvania 19106-4198; telephone: 1-800-444-1785.

**Impotence and the Fountain of Youth:** by Robert W. Wilson is the personal account of a man who underwent surgery for a penile implant to correct diabetes-related impotence. Mr. Wilson discusses his problem frankly, describing his initial reaction to the development of his problem, his medical evaluation before surgery, his adjustment to the implant, and his satisfaction with the results. The book includes discussions of psychological and physical causes of impotence and types of prostheses available to treat impotence. The account is simply written and short, and large-size type adds to the readability.

The book may be ordered from the Wilson Publishing Company, 431 East Second Street, Milan, MO 63556, at a cost of \$18.95, including shipping and handling.

**Diabetes: A Guide to Living Well:** by Dr. Gary Arsham and Ernest Lowe, both of whom have diabetes, stresses individualization of self-care plans. The authors offer three levels of diabetes management to match differing motivational levels—the intensive regimen, the moderate regimen, and the loose regimen. The book also provides guidance on insulin reactions, diet, exercise, handling stress, relationships with health professionals, maintaining self-esteem, and establishing support among others with diabetes. Special chapters address issues affecting women and children with diabetes.

The book costs \$12.95 and can be ordered by writing to Box 739, Wayzata, MN 55391; telephone: 1-800-848-2793.

## Know your food needs

by J. Mastrrianni

Diabetics who are insulin-dependent should study their individual responses to physical activity in order to know how much more food than usual to take in for the purpose of expending more energy than normal. An individual who takes insulin may need to reduce amounts by at least as much as 20 percent before vigorous exercise and to increase food intake by an equal amount. It is also important to be prepared to cover unexpected low blood sugar levels by carrying adequate nourishment at all times. Some young tennis players carry restaurant sugar packets taped to the inside of their tennis sock, handy in a hurry but not obvious as a special requirement.

The insulin-dependent diabetic needs to shed the old concept that sugar is forbidden. It is essential to know, however, when to use sugar in order to be able to enjoy the full use of your body. This is particularly true

in dealing with unplanned periods of physical activity, such as shoveling your car out of deep snow or participating in an extra football practice.

For some diabetics it is necessary to eat candy or orange juice every 15 minutes under such circumstances. Exercise is also useful during periods of unaccustomed inactivity or stress. These activities can be enjoyed indoors at home or office, no matter what the weather. A few minutes of dancing, jogging, or skipping rope can help to keep the blood sugar normal or restore it if it rises, without benefit of extra insulin and its associated risk of low blood sugar.

In determining your caloric needs, factors such as age, body size, sex, climate, and activity must be considered. The American Diabetes Association and the Juvenile Diabetes Association have developed tables to guide you in determining your caloric needs. However, consult your doctor, who can help you in this matter.



## Tidbits and humor

(Editor's Note: The jokes used in this issue of the *Voice of the Diabetic* have been "stolen" from *The Bell, The Clapper, and the Second Cord: Wit and Witicism, Volume II*, which was published by the National Federation of the Blind as a compilation of the jokes included in the "Presidential Releases" of Mr. Marc Maurer, NFB President, and Dr. Kenneth Jernigan, former President of the National Federation of the Blind.)

A dog is such a lovable creature be-

cause it wags its tail instead of its tongue.

### Motivation

Motivation is the key to success in any endeavor, whether it be on a national, corporate, or individual level. The degree to which one succeeds in attacking a difficult problem requiring a measure of individual effort and perhaps some sacrifice is in direct proportion to his or her motivation.

### New Division

Larry Povinelli writes: On April 6,

1990, the NFB of Virginia established a Diabetics Division, and elected the following officers: President, Bill Parker; First Vice President, Ed Peay; Second Vice President, Geraldine Burke; Treasurer, Maxine Oates; Secretary, Dawnell Cruze.

Congratulations, Virginians — it's obvious that you're on the move!

Q: If you have a bee in your hand, what do you have in your eye?

A: Beauty, because beauty is in the eye of the bee holder.



Mildred Dickey serves as state representative for the NFB Diabetics Division of New Hampshire. She is an active Federationist, and reaches out with support and information for many.

### Hotline Numbers

Following are hotline numbers so you can obtain free medical information and keep up-to-date on the latest research:

1. *Amputation*. The National Am-

putation Foundation; phone: (718) 767-0596.

2. *Blindness*. National Federation of the Blind. Offers information regarding all aspects of blindness; phone: (301) 659-9314.

3. *Blindness and Physically Handicapped Available Programs*. The National Library Service for the Blind (part of the Library of Congress); phone toll-free: 1-800-424-8567; in Washington, D.C.: (212) 287-5100.

4. *Diabetes*. The American Diabetes Association (ADA); phone toll-free: 1-800-232-3472; in Virginia: (703) 549-1500.

5. *Diabetes*. Juvenile Diabetes Foundation; phone toll-free: 1-800-223-1138; in New York: (212) 889-7575.

6. *Drugs: Drug Interaction, Drug Side Effects*. Food and Drug Administration (FDA), Center for Drugs and Biologics, Office of Consumer and Professional Affairs, Rockville, MD; phone: (301) 443-1016.

7. *Heart Disease*. Heartline. Sponsored by the Association of Heart Patients; phone toll-free: 1-800-241-6993.

8. *Kidney Disease*. The American Kidney Fund; phone toll-free: 1-800-638-8299; in Washington, D.C.: (301) 986-1444; in Maryland: 1-800-492-8361.

9. *Surgery*. Second Opinion Hotline. Sponsored by the U.S. Government Department of Health and Human Services; phone toll-free: 1-800-638-6833; in Maryland: 1-800-492-6603.

### For Sale

We have been asked to announce the following: FOR SALE. Visualek Voyager. Superb condition! Five years old. Has recently been cleaned and had \$200 worth of new parts installed. Includes movable reading tray, cover, two new light bulbs, and instruction manual. 12-inch screen, magnifies 35x, portable. Price: \$1550, includes shipping. Save \$800 off the cost of a new one! Call Denise Bradley, 505-268-1633.

Q: Why is television called a "medium"?

A: It isn't rare, and it isn't well-done.

Q: Why was six afraid of seven?

A: Because seven eight nine.

### Amputations

We recently received the following press release: The National Amputation Foundation, the largest amputee veterans' organization in the United States, is reaching out to all amputees whether veteran or civilian. The Foundation has booklets on all aspects of the amputee's lifestyle. The Foundation is offering the following booklets free of charge:

- Tips for Amputees
- Access Travel - Airports
- About Barriers

To order the free booklets, contact the Foundation at 12-45 150th Street, Whitestone, NY 11357; phone: (718) 767-0596.

## ADVERTISERS

Effective advertising doesn't scream at its audience. It persuades. It sells. The key to cost-effective advertising is making your voice heard where an audience is already listening. *Voice of the Diabetic* offers such an outlet. Make your voice heard. For advertising information contact:

Voice of the Diabetic  
Ed Bryant, Editor  
811 Cherry Street, Suite 306  
Columbia, MO 65201  
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## Subscription/Donation/Membership Form

*Voice of the Diabetic* is a quarterly magazine for anyone interested in diabetes, especially diabetics who are blind or losing vision. The \$5.00 annual membership fee of the Diabetics Division of the National Federation of the Blind (NFB) entitles you to a year's subscription to *Voice of the Diabetic*. However, production cost per annual subscription of the *Voice* is about \$15.00, and for this reason we must charge all non-members, health professionals and institutions \$15.00 for an annual subscription. Of course, all donations are accepted and very much appreciated.

You may receive the *Voice* as a member or non-member. Please check one:

- ☐ I would like to become a member of the Diabetics Division of the NFB and receive a free subscription (one year) to *Voice of the Diabetic*. (\$5.00)
- ☐ I would like to subscribe to *Voice of the Diabetic* as a non-member, health professional, or institution. (\$15.00/one year; \$28.00/two years; \$40.00/three years)

The *Voice* is available in print or on half-speed (15/16 ips) cassette tape; cassettes are provided at no extra cost. Please check one box. I would like to receive *Voice of the Diabetic*:

- ☐ in print ☐ on cassette tape ☐ both in print and on cassette tape

Optionally, check this box:

- ☐ I would like to make (or add) a tax-deductible contribution of \$\_\_\_\_\_ to the Diabetics Division of the NFB. Please print clearly

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Telephone Number (\_\_\_\_\_) \_\_\_\_\_

Send this form or a facsimile along with your check to our editor:

Ed Bryant, 811 Cherry St., Suite 306, Columbia, MO 65201

Please make all checks payable to the NATIONAL FEDERATION OF THE BLIND.